

**It's Important to
Know In Time'**Member Associated Business
Papers, Inc.; Audit Bureau
of Circulations.**The Newspaper
of the Industry****Air Conditioning &
REFRIGERATION**Reentered as second-class matter October 3, 1936 at the post office at Detroit, Michigan, under the Act of March 3, 1879.
Trade Mark Registered U. S. Patent Office. Copyright, 1941, by Business News Publishing Co.**NEWS****A-10 Rating on Repairs Doesn't
Cover Commercial Installations****Repair Ratings Coming For
Household, Commercial,
OPM Official Hints**

WASHINGTON, D. C.—The A-10 repair parts priority order issued last month under Preference Rating Order No. P-22 does not apply to meat markets, restaurant refrigeration systems, etc.—any of the ordinary and usual "commercial" refrigeration installations.

It applies only to Plants engaged "in the milling, refining, preserving, refrigerating, wholesaling, or storing of food for human consumption or livestock feed," according to official interpretation from the OPM.

Dealers, refrigeration supply jobbers, and service men are warned to be careful against a misuse of this A-10 rating under Preference Rating Order No. P-22, since the OPM field investigations now starting will probably be quite thorough.

Encouragement for the refrigeration industry was seen last week in a statement made by an official of the repair parts section of the OPM to a correspondent for the NEWS to the effect that a high priority rating for repair parts for both "commercial" and "household" refrigeration
(Concluded on Page 16, Column 1)**Westinghouse Lay-Off
Affects 1,000 Workers**

MANSFIELD, Ohio — Approximately 1,000 workers in the Mansfield plant of Westinghouse Electric & Mfg. Co. will be laid off on Oct. 13, it was announced last week. The lay-off, or "furlough" as the company termed it, is necessitated by the recent OPM order cutting production of mechanical refrigerators.

The Mansfield plant, which produces refrigerators, ranges, irons, roasters, and other household appliances, had 5,053 employees on Aug. 30. The coming lay-off will leave an active list of about 4,000.

**Frigidaire Expects Curb
To Leave 3,000 Jobless**

DAYTON, Ohio—Federal orders to curtail production of refrigerators will mean a layoff of about 3,000 workers at the Frigidaire division of General Motors Corp. here, officials of the company expect. This would be about 20% of total employment.

**Additional 'Informal' Views of
Refrigeration Excise Tax**

DETROIT—Additional "informal" interpretations of the new Federal excise tax on refrigeration equipment came to light last week. As explained in the Oct. 1 issue of the NEWS, in which other such "informal" interpretations were published, no "official" interpretations will probably be available for 90 days.

On the question of whether or not repair parts are available, L. P. Roth of Refrigeration Service, Inc. directed an inquiry to D. C. Bliss, Commissioner of Internal Revenue, Washington, D. C., asking:

"Are refrigeration repair parts other than components taxable when sold separately? Also does reference to controls as component refer to other than primary electrical control either pressure or temperature operated?"

To which question he received the following answer:
"Repair parts for refrigerators**No Design Changes
Forecast For '42
Refrigerators**

NEW YORK CITY—Practically no changes in design of 1942 electric refrigerator models, except where there has been substitution of materials, are anticipated by appliance distributors here who have some information on next year's product lines.

Earlier in the year, they pointed out, manufacturers were unable to obtain the equipment to make any radical changes, and were forced to use last year's dies. Although no dates have been announced, it is considered unlikely here that 1942 refrigerator models will be shown before December. Some "interim" models are being brought out as sales leaders for the last quarter of 1941, their chief selling point being special equipment.

**Dealer Sees Sales
Difficult In 1942**

NEW YORK CITY—Convinced that his company's salesmen will have to drive as hard for business next spring as they did during normal times, the advertising manager of a large electrical appliance dealership here is fighting for every dollar possible for his budget, reports the "New York Times" in a recent issue.

"Even with reduced production, he said, sales are going to be difficult to make because of higher prices, increased income taxes, and the large
(Concluded on Page 13, Column 3)**Kellie Elected Aminco
Vice President**

DETROIT—In recent promotions at American Injector Co., Edward Kellie has been named vice president, John L. Trix has been named secretary, and S. C. Budd, formerly credit manager, has been appointed treasurer. H. B. Trix continues as president.

Mr. Kellie has been sales manager of American Injector's refrigeration appliance division since June, 1938.
(Concluded on Page 16, Column 2)**TECORD To Meet Oct. 14-15
In Detroit; Members Are
Already In Action Locally**

Members of TECORD (Temporary Educational Committee of Refrigeration Distributors) will meet in Detroit, at the offices of AIR CONDITIONING & REFRIGERATION NEWS, Oct. 14 and 15. The Supplies Jobber-Service Man Section, under the chairmanship of Frank Langsenkamp, will meet Tuesday, Oct. 14 at 2 p.m. The Distributor-Dealer Section, under the chairmanship of John White, will meet Wednesday, Oct. 15 at 3 p.m. H. G. Bogart, Jr., is general chairman.

Interest in the Distributor-Dealer Section is heightened by the fact that the Major Appliance Committees of the National Electrical Wholesalers Association will meet in Detroit on the morning of Wednesday, Oct. 15. The two groups are expected to get together to work out concurrent plans of action for the promotion of the industry.

Committee members have been actively and aggressively furthering the Cause in their own communities, as readers can see by turning to pages 3, 4, and 5 of this issue.

Such action, of course, is exactly what those who attended the "Refrigeration Town Meeting" held at the offices of the NEWS hoped would transpire. The entire nation must be awakened to the necessity for continuing production of refrigeration equipment during the war, and distributors, dealers, jobbers, and service men are in the best position to accomplish this aim.

Any dealer or distributor of refrigeration products, whether a committee member now or not, is welcome to attend the meeting of the Distributor-Dealer Section of TECORD Oct. 15. Likewise, all refrigeration supplies jobbers and service men are invited to attend the meeting of their Section Oct. 14.

**Don't Raise Prices, Dairy Show at Toronto
Henderson Urges
Oct. 20-25 Will Set
'Off-Year' Record**

WASHINGTON, D. C.—Manufacturers, wholesalers, and retailers dealing in articles subject to the new Federal manufacturers' excise taxes are asked by Leon Henderson, Administrator, Office of Price Administration, to exert their utmost efforts to prevent price increases to ultimate consumers exceeding the actual amount of the additional taxes.

Excise taxes of 10% will apply for the first time to such articles as electric, gas, and oil appliances, including flat irons, fans, stoves, mixers, and vacuum cleaners; to a large list of rubber products, excluding footwear, and to electric light bulbs. As applied to articles that have
(Concluded on Page 16, Column 2)

TORONTO, Canada—The fourteenth annual Dairy Industries Exposition to be held Oct. 20 through 25 in the Automotive building at the Canadian National Exhibition grounds here will be the largest "off-year" show ever held.

The 167 exhibitors signed up for the show as of Sept. 10 set a new record for an "off-year" exposition.

Five conventions closely allied with the dairy industry will be going on in Toronto during the week of the show: International Association of Milk Dealers, International Association of Ice Cream Manufacturers, Ontario Milk Distributors' Association, Ontario Creamery Association,
(Concluded on Page 16, Column 5)**Dealers Cool
To N. Y. Edison's
Servicing Plan****Fear Loss of Own Service
Revenue When They
Need It Most**

NEW YORK CITY—At least until they learn more details as to how the whole thing's going to be worked out, most appliance distributors and dealers here appear to be definitely cool to the plan recently proposed by E. F. Jeffe, vice president of Consolidated Edison Co., for the establishment of an independent "super-servicing" organization to handle repair and maintenance of all appliances in the greater New York area.

Main objection to the plan, as far as dealers were concerned, was that it might cut away much of their own appliance servicing business, always an important source of new-appliance sales leads, and now more important than ever as an added source of revenue, in view of the fact
(Concluded on Page 16, Column 3)**Programs Outlined
By Detroit ASRE**

DETROIT—Through the efforts of Otto Z. Klopsch, chairman, a complete program of activities for the 1941-42 season has been prepared for the Detroit Section of the American Society of Refrigerating Engineers. Meeting program for the remaining months of 1941 follows:

OCTOBER 13George B. Bright, chairman. Stroh Brewery, 909 E. Elizabeth St.
"Brewery Refrigeration," George
(Concluded on Page 16, Column 2)**Home Washers Not Hit
By 10% Excise Tax**WASHINGTON, D. C.—Household washing machines, and possibly ironers as well, have not been included in the 10% excise tax on major appliances which went into effect on Oct. 1. It had been generally assumed that home washers would be subject to the tax, since
(Concluded on Page 13, Column 3)**SalesWOMEN Replace SalesMEN as Manpower
Of U. S. Is Called To Arms and Defense Plants**

When its dealers found their sales staffs "dissolving" because of the draft and the demands for defense labor, Southern Bearing & Parts Co., Charlotte, N. C. distributor, decided to train saleswomen to replace the men. Above is the first class, with George Fulenwider, sales manager, and Ray Walker and Fred Wilson, field representatives.

CHARLOTTE, N. C.—With the draft and widening demands for labor reducing the supply of salesmen, women are being trained to sell in a series of schools being conducted by Southern Bearing & Parts Co., distributor for Norge, Bendix Home Laundry, Ironrite, Youngstown kitchens, and Farnsworth radios.

"For some time we have been finding out that it is an almost impossible task to keep our dealer salesforces intact," explains George Fulenwider, appliance sales manager for Southern Bearings. "We just couldn't get salesmen for our dealers. With this in mind, we felt that there would be openings for saleswomen."

"This looks easier than it actually was when we tried it out. The average woman has had no sales experience and less training—but—on the other hand, many women are capable talkers but untrained for the regular office jobs and they need work."

(Concluded on Page 16, Column 1)

Specialty Selling in the 'Emergency'

Boost Your Own 'Selling Average' To Top Today's Tougher Market

By William Rados, Sales Promotion Manager, Refrigeration Division, The Crosley Corp.

Editor's Note: This is the third article of a series of five by Mr. Rados, discussing problems of appliance selling under today's unusual conditions. The author, a veteran sales educator and analyst, formerly was manager of Kelvinator's National Salesmen's Institute. Previous articles appeared in the issues of Sept. 24 and Oct. 1.

What will curtailed production of refrigerators, now a fact, mean to you as a salesman or dealer? Will selling be a pushover?

While detailed prediction of the distant future is something wise men had better stay away from, we can look around us now and report on the actual thinking and doing of leading appliance dealers today. First, good salesmanship is definitely NOT curtailed "for the duration."

The smart salesman will recognize that, today more skillful salesmanship will be needed. Can you step up your personal salesmanship, your demonstrations, your closing techniques? Can you increase your batting average? If so, you will be thinking straight regarding this problem of progressing under today's conditions.

Here are five tips:

(1) Learn how to give a demon-

stration based on adequate mark-up. No longer is it necessary—if it ever was—to sell refrigerators and other appliances at inadequate prices, except for the inability of the salesman to demonstrate value. To sell a \$250 order you must give a \$250 demonstration.

(2) Create a need for the top models. Taking the experience of one particular store in 1941, when the salesman "accepted" an order for a Crosley leader model the store mark up was \$38.95. But when he creatively demonstrated and sold a top Crosley (DM-841) the store's gross was around \$86.95—more than double. One way to increase income through fewer sales transactions is to move more of the top models—the ones that require the best salesmanship.

(3) Sell two appliances at one time. Many a retail salesman today knows that it is just as easy to sell two or more appliances at one time. This is particularly true when the salesman gets to the buyer before that customer's credit has been signed away on a number of installment contracts.

(4) Become a full-line salesman. Good appliance salesmen are good because they are good demonstrators of everything they have to sell.

It's a good salesman who is a GOOD refrigerator salesman plus a GOOD washer salesman plus a GOOD radio salesman plus a GOOD range salesman plus a GOOD ironer salesman.

(5) Don't let a prospect walk out without trying to sell her something. If you can't sell her a deluxe refrigerator, try a lower price or smaller model. Or if a refrigerator is out of her reach, try a console or a portable radio. If that's too much money, try a small appliance. Remember, to build a repeater you have to start with one appliance.

Your problem of getting ahead in today's condition starts with YOU. Wide-awake GOOD dealers and salesmen will always be in demand regardless of "conditions."

Down Payments Tripled Without Any Urging

TOLEDO—Down payments in the appliance department of the J. W. Greene Co. here have tripled in size during the past two months without urging on the part of salesmen, according to J. H. Beat, department manager.

Given as a reason is the fact that government priorities have stimulated people who ordinarily buy on time payments to buying now and paying either cash or as large a down payment as possible. Higher wages and tighter credit looming on the horizon also tend toward bigger down payments.

The store is selling a record volume in every bracket of appliances with increases of at least 20% in ranges, refrigerators, washers, and vacuum cleaners.

The New Era—Sell 'Em Down

Salesmen Get Prospects In a Quiet Corner, Deflate Ideas of What They Can Afford

By Jim McCallum

CINCINNATI—A cautious, diplomatic program of "customer qualification" by the store's salesmen has enabled the May-Stern department store here to stem a flood of rash and ill-considered buying, and to keep each customer's total purchases within sane limits without injuring the customer's feelings or insulting his intelligence.

Fully realizing that when the full impact of the defense industry boom hit Cincinnati that there would be hundreds of individuals and families whose incomes would be suddenly doubled, tripled, or perhaps even more greatly magnified, Martin Mendelker, manager of the May-Stern store, wisely took steps to protect his company against the possibility of putting out a tremendous volume of merchandise which would be sure to bounce right back into the store's lap if the defense boom bubble should burst before the merchandise was fully paid for.

MAKE IT 'PAINLESS'

So day after day at their regular meetings the store's sales personnel is drilled and drilled again in the artful technique of "painless" customer qualification. Mr. Mendelker never for a minute lets his sales people forget that this particular phase of salesmanship is now, more than ever, one of the most important aspects of their job.

As a result, here's what happens: Just suppose, for instance, that a hypothetical Mr. and Mrs. Jones come bursting into the May-Stern store one day overflowing with enthusiasm over the idea of completely refurnishing their kitchen from stem to stern and from ceiling to floor.

Mr. Jones, let us say, has for some time been making only about \$20 a week at some minor mechanical job, but now has obtained a position with one of Cincinnati's many machine tool shops at about \$60 a week.

Elated over the suddenly tripled family income, and failing to realize that this new job probably will last only as long as the defense boom itself lasts, the Jones' immediately begin to conjure up all sorts of ways to spend their new-found wealth.

One of the first things to do, they

decide, is to modernize the kitchen. And so they begin to outline their ambitious plans to the May-Stern salesman.

After listening to their outpouring of ideas, the salesman then begins to question Mr. Jones and his wife—discreetly, and with plenty of subtle indirection—about the size and character of the family income. He thus finds out where Mr. Jones works, how much he makes, how long he has been receiving that wage, and how long he is apt to continue receiving it.

SALESMAN HINTS LESS

Then the salesman makes a quick estimate of his own as to what he thinks a reasonable expenditure for the family would be under the circumstances described to him. Usually, the salesman's estimate is well below that of the enthusiastic customer, so then begins the process of gradually reasoning the customer into the idea of going at this buying business a step at a time, instead of plunging precipitously off the deep end.

In the case of Mr. Jones and the new kitchen he wants to buy, for example, the salesman might suggest that instead of buying the whole outfit at one fell swoop the family instead start off by purchasing just a refrigerator, and then add the other appliances and furnishings as they go along.

All of this "selling down" is done quietly, and apart from any other customers. It takes the form of a friendly personal conversation between salesman and customer—perhaps in a separate room, perhaps in an isolated section of one of the store's floor displays.

Of course if a customer still insists on buying over his head, the salesman merely takes him down to the credit department, where the limitations of his purchasing power at the May-Stern store are outlined with definiteness and finality.

But Mr. Mendelker firmly believes that the policy of customer qualification by the salesman, rather than the credit department, saves both the store and the customer a lot of grief and ill will.

Denver Dealer 'Handicaps' Contests To Penalize the Previous Winner

DENVER—Ordinary sales contests keep men on their toes only until the star salesman piles up a big lead or wins too many contests, believes Herb Names, who operates Herb Names, Inc., appliance dealership here. So Mr. Names has devised plans which make it almost mathematically impossible for one man to get too far ahead of the rest, or even win two contests in a row.

The firm runs contests monthly. Mr. Names, in starting a new contest, checks the gross sales of each man for the preceding six months. The sales of the high man for this period represent the base figure for the new contest.

THE PLAN IN ACTION

Here's how it works. Suppose that the top man has sold \$12,000 worth of merchandise in six months, No. 2 has sold \$10,000, No. 3 \$8,000, and No. 4 only \$6,000. Sales of the three lower men are divided into that of the top salesman. The \$12,000 total, divided by \$10,000, equals 1.2. Therefore, for every unit of volume sold the No. 2 man is credited with 1.2 times as many points as the No. 1 man. Similarly, the No. 3 and 4 men receive 1.5 and two times as many points, respectively.

Thus the high man for any one contest must do a terrific job of selling in the following contest to overcome the odds and win.

Prize money offered in these contests is gauged to current merchandising needs and desires of the salesmen. The company allows 5% of its total budget for advertising, paying commissions out of that fund. If salesmen have plenty of leads and believe little advertising is necessary

that month, as much as 20% of the advertising fund may be used as prize money. Prize money is divided three ways, 50% for first, 30% for second, and 20% for third.

The three winners in these monthly contests contribute a total of \$6 to a "kitty" for a supplementary contest on Bendix home laundry units. Purpose of this contest is to encourage salesmen to concentrate in neighborhoods where sales have already been made.

HIS PRIZE—MORE NAMES

When a man makes a sale in a given block, he is provided with a list of names and addresses of all other residents in that block. For the second sale there he is credited with 200 points. The third nets 400 points, the fourth 800, etc. At the end of the month the man with the highest total wins the kitty. For each dollar of down payment obtained by a salesman in selling his second, third, or fourth machine in the same block he is allowed an extra point.

No cold canvassing is done by the salesmen, other than that in a block where a unit has been sold. When a man runs short of prospects he canvasses by telephone, making appointments for personal calls. Each man is provided with a desk and telephone of his own to facilitate these calls.

Sale of a laundry unit doesn't mean the end of the deal for Herb Names men. The driver who delivers the washer never includes the electric cord. The salesman later brings that out, instructs the housewife on the operation of the unit, and attempts to sell an ironer.

ANNOUNCING
A New Scientific Development in
Refrigerator Insulation

BALSAM-WOOL PNEUMATIC SYSTEM

TO REFRIGERATOR manufacturers seeking a more effective, more economical cabinet insulation, Wood Conversion Company announces an entirely new insulating material . . . and an entirely new method of application: The Balsam-Wool Pneumatic System. Here are its essential features:

- 1 A new insulating material, manufactured under rigid control, which takes full advantage of the cellular structure of wood fibers, and which is blown into refrigerator walls and doors under pressure.
- 2 A material second to none in insulating efficiency.
- 3 Fills every void—no filler strips, no cracks or joints.
- 4 Entire cabinet or door insulated in one operation—requiring from 10 to 20 seconds.
- 5 Non-settling—provides a uniform, resilient insulation and a continuous insulation mat.
- 6 A clean material, no dust hazard, no skin irritation—a material scientifically designed for modern production lines.
- 7 Small storage space—one freight car carries the same amount of material formerly requiring four cars.
- 8 Shipped in units easily handled by one man—saves handling and labor.
- 9 One inventory—suitable for any size of cabinet.
- 10 Ample supply available for prompt shipment—to meet any manufacturing requirement.

A COMPLETE VISUAL PRESENTATION IS READY FOR SHOWING IN YOUR OFFICE. WRITE US ABOUT ARRANGING AN APPOINTMENT SUITABLE FOR YOUR CONVENIENCE.

WOOD CONVERSION COMPANY

Dept. 193-10, First National Bank Building • • • St. Paul, Minnesota

MANUFACTURERS OF BALSAM-WOOL AND NU-WOOD INSULATIONS

Distributors Pledge Support To TECORD, Some Start Own 'Mail' Campaigns

Threat To Business Is Now Widely Recognized In Field

Editor's Note: Letters on this and the following pages illustrate the enthusiastic response and "want to do something" reaction of the distributing part of the refrigeration industry to the plan for the functioning of the Temporary Educational Committee of Refrigeration Distributors to make the government conscious of the importance and essentiality of mechanical refrigeration.

Some of the letters also reveal what some of these men have already done on their own to focus the attention of influential people both inside and outside the government on the importance of maintaining and expanding modern refrigeration equipment.

FACILITIES FOR REACHING ALL BRANCHES OF INDUSTRY

H. G. Bogart Co.
Distributor
217 Cherry St.
Toledo, Ohio

Dear George:
Thanks for your letter of Sept. 16, and I note that you have placed me on the committee.

You are, in my opinion, in the best position to stimulate interest all the way down the line because of your facilities for reaching all branches of the industry, and the fact that you are now receiving encouraging letters as the result of the first meeting is certainly a good sign.

H. G. BOGART,
President

GOV'T HAS LITTLE CONCERN FOR DEALERS, BURNS FEELS

Judson C. Burns
Distributor
31st & Oxford Sts.
Philadelphia, Pa.

Editor:
Your announcement regarding your meeting of Sept. 10 did not give me sufficient time to readjust my affairs, therefore I found it impossible to be with you.

I am sure it was a meeting with the right intents and purposes, and I hope it was a success. I have to confess that I agree with the remark about the Government. I greatly fear they have no concern whatsoever regarding distributors and dealers. They have no objection to taking the distributors and dealers taxes, but that seems to be their only concern.

JUDSON C. BURNS

SO. CALIFORNIA GROUP 'IS MUCH CONCERNED'

Southern California Edison Co., Ltd.
Edison Building
Los Angeles, Calif.

Editor:
We are very much interested in your article appearing in the Sept. 10 issue, entitled "Defend Our Dealers and Wholesalers" and the fact that a representative group has met in your office to discuss the problem of distribution, both now and after the emergency.

We are very much concerned with this matter here in Southern California; in fact, on the whole coast, and as vice chairman of the Business Development Section of the Pacific Coast Electrical Association, I would appreciate any information developed at your meeting that would be helpful in solving a similar problem which we have out here.

H. C. RICE,
Mgr. of Domestic Sales

JERSEY SERVICE MEN GET UP A PETITION

Radio Hospital
Parts and Supplies for
Air Conditioning, Refrigeration, and
Oil Burners
113 Factory St., Trenton, N. J.

Editor:
I am enclosing a copy of a petition, which the Trenton Chapter of the Refrigeration Service Engineers Society has drafted to be signed by their commercial refrigeration customers, and forwarded to their congressmen. They also intend to draft a like one for their domestic customers.

If you have any comments, or suggestions for improving this petition, we would appreciate hearing from you.

HARRY H. JAEGER
To the Honorable D. Lane Powers
We the undersigned are dealers in perishable foods, and maintain that our Commercial Refrigeration is absolutely essential to preserve public health and conserve our food supply,

and as such is just as necessary for defense as guns, planes, and battleships. In fact, Refrigeration is defense for our health and food supply, and thus for the entire country.

Therefore it is of vital necessity that replacement refrigeration parts and equipment be given a very high priority rating for the maintenance of our present refrigeration equipment.

Firm and address	Individual	App'x customers

GLOU PLEDGES USE OF HIS MAILING LIST

Central Service Supply Co.
409 E. Jefferson St.
Syracuse, N. Y.

Dear George:
If you will advise me what the functions of the committee are, I will lend everything I possibly can to achieve what we are after.

Our own customer lists are available for mailing any propaganda.

TED GLOU

H. W. SMALL WRITES, WIRES FACTORS WHO MAY HELP

Thermal Co., Inc.
2448 University Ave.
St. Paul, Minn.

Editor:
I will be very pleased to serve on your committee. Without any further instructions I am going right to work, and I am sending you copies of two telegrams and a letter I have written today.

H. W. SMALL,
President

To Claude Wickard - -

Western Union
St. Paul, Minn.
Meeting Chairman
Secretary Claude Wickard's
Farm Conference
Chicago, Ill.

An increase in dairy and farm products requires an increase in refrigeration and processing equipment. No priorities established for this. Cannot something be worked out today at your meeting?

H. W. SMALL

To Radio Round Table - -

Western Union Telegram
St. Paul, Minn.
Sept. 18, 1941
Chicago University Round Table
Chicago, Ill.

Please cover in your talk this coming Sunday on the farmers' place in the defense program, how the farmer can possibly produce more perishables if plants to which the products are sent have insufficient capacity to process them. No priorities are provided for an increase in food processing equipment. Many small country creameries are in need of an increase in capacity now.

H. W. SMALL

To Dairy Industry - -

Mr. Ralph Ammon,
Commissioner of Agriculture
State of Wisconsin
Madison, Wis.
Dear Sir:

Dan T. Carlson has referred me to you in your capacity as general chairman of the United Dairy Industry. From official statements and from the obvious defense requirements, there is going to be an increase in the production of dairy products. These products are of a perishable nature and require processing equipment including refrigeration. Little purpose can be served if dairy products are increased—if plant capacity is not correspondingly increased to process them properly.

It is equally true that if meat products continue to advance in price

as they have recently, that in the small farm communities the demand for freezing and storage space will be a necessity in order to provide the farmer with a means of processing and storing his product in some established plant, such as the locker plant. Priorities have been granted under a recent ruling which will permit a refrigerating machine that is used in the processing of foodstuffs to be repaired. This is a step forward, but it is not sufficient.

Creameries and processing plants cannot accept more produce than they are in a position to run through their plants before deterioration. No priorities are available today to provide refrigeration or any part of a refrigerating system when it is used to create an increase in capacity in the plant itself. Time does not permit me to go into the details, and I am sure they are too well known to you and the industry to be open to much argument. The dairy industry must have refrigeration, and it must have a priority under which increased plant capacity can be obtained.

Mr. Carlson advises me that you have a sub-committee on government relations that has an appointment with Secretary Wickard next week. He also advises me that you have a sub-committee on priorities.

I am mailing you two copies of this letter in the hopes that this problem can be presented to your proper committees so that responsible government officials will be shown the necessity of granting a priority on the refrigeration requirements of dairies including new equipment which could be used for an increase in the processing plant capacity to handle more farm and dairy products.

H. W. SMALL

'RAISE LEVEL OF INDUSTRY IN GOV'T EYES'—BARTLETT

The Electric Institute of Washington
Peppo Building
10th and E Sts. N. W.
Washington, D. C.

Editor:

I have been very much interested in the work which your organization has been doing in connection with raising the level of the refrigeration industry in the eyes of government agencies and the public.

I shall be glad to accept the appointment to the Temporary Educational Committee of Refrigeration Distributors, as you requested in your letter of Sept. 17. I only hope there is something really constructive which I can do locally to further the ends of the committee.

You can be sure that I shall welcome any opportunity of cooperating with you.

J. S. BARTLETT,
Managing Director

'ACTION NEEDED TO AVOID A COLLAPSE'

Richmond Electric Co.
Distributors
1024-1026 Main St.
Richmond, Ind.

Editor:

If you think that I could be of any value as a member of the Temporary Educational Committee I will be glad to accept a place on your committee and to contribute my best to help make it successful.

Essential materials for the manufacture of consumers goods such as refrigeration, ranges, heaters, etc.

will have to ease up materially if we are to continue to stay in business, and in order to avoid a collapse in the refrigeration industry everyone should shoulder his responsibility when called upon to contribute something to the end that we may be permitted to function with a minimum amount of interruption if we are to fill the essential needs of the American people.

I am personally acquainted with both of Indiana's United States Senators and, while one of the senators is a Republican and the other is a Democrat, both men in my opinion are endeavoring to do the right thing for the American people, and I feel quite sure that the industry will have their cooperation. I happen to be also acquainted with several of the congressmen.

Please count on me to render whatever assistance I can to help in this emergency.

C. A. KLEINKNECHT,
President

'WILL BE GLAD TO SERVE' SAYS CALLAHAN OF N. Y.

Electric Refrigerator Association of
New York, Inc.
220 East 42nd St.
New York, N. Y.

Editor:

I have your letter of Sept. 17 and certainly am interested in your movement.

Be assured that I shall be glad to serve in any capacity whatsoever wherein my services will be of assistance.

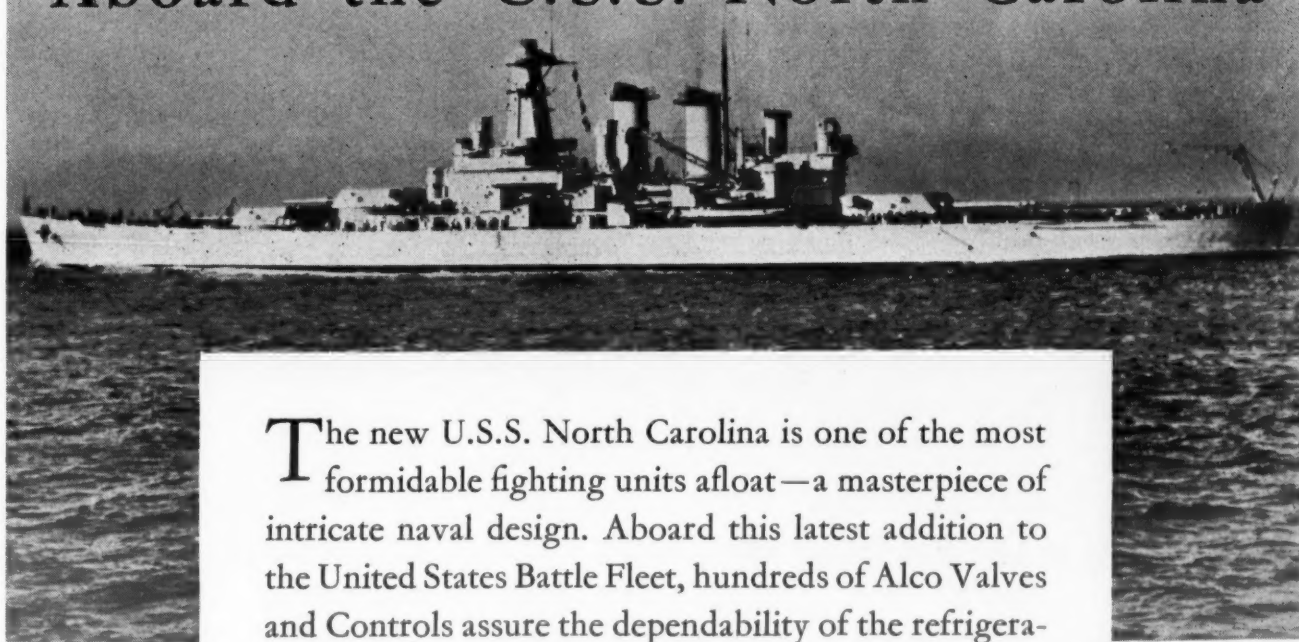
I shall await further word.

A. F. CALLAHAN,
Managing Director

ALCO Controls

Play Their Part in Defense

Aboard the U.S.S. North Carolina



Official U. S. Navy Photograph

The new U.S.S. North Carolina is one of the most formidable fighting units afloat—a masterpiece of intricate naval design. Aboard this latest addition to the United States Battle Fleet, hundreds of Alco Valves and Controls assure the dependability of the refrigeration and air conditioning systems.

Alco controls on the ships of the fleet must not fail. The wide use by the Navy Department of Alco Controls, for both surface and sub-surface vessels, is but another example of the universal recognition of Alco quality, engineering and dependability.

Regardless of your own requirements, perhaps not as complex or hazardous as those of the Navy, Alco Valves assure you the finest, most accurate type of refrigerant control available today.

ALCO VALVE COMPANY

2620 Big Bend Blvd. • St. Louis, Missouri
New York • Chicago • San Francisco • Los Angeles • Seattle



Engineered Refrigerant Controls

THE STANDARD OF THE INDUSTRY

Tecord's Drive To Tell 'Story' Of Industry Gathers Momentum

EVERY DISTRIBUTOR SHOULD GIVE EFFORT

Peirce-Phelps, Inc.
Wholesale Distributors
437 N. Fifth St.
Philadelphia

Editor:

I was glad to receive your letter of Sept. 17 advising that concerted action is planned by the industry to secure recognition from OPM and Congress that refrigeration is an essential industry.

I shall be glad to accept an appointment to the Temporary Educational Committee of Refrigeration Distributors. I agree with you that it is important that we all hang together on a common program and that every distributor gives some time and effort to putting it over.

J. TREVOR PEIRCE,
Vice President

'GIVE THEM A TASTE OF SPOILED MEAT'

Authorized Refrigeration Parts Co.
4056 West Pine Blvd.
St. Louis, Mo.

Editor:

Enclosed find clippings from "Star Times" showing that refrigeration is vital for food preservation.

In a recent news article it was stated that the president of a large vacuum cleaner company appeared before the OPM board in Washington in an effort to obtain steel. He was asked why he considered vacuum cleaners important. Instead of reply-

ing, he knelt on the floor and blew dust in the face of the party asking the question. It was stated that the board's ruling was favorable after this. Why not take a piece of meat that had spoiled from lack of refrigeration and ask the gentlemen if they would care to eat some of it.

L. W. KRUEGER

CHAMBERLAIN GETS JOB STARTED IN CALIFORNIA

Bureau of Radio and Electrical Appliances of San Diego County
San Diego

Dear George:

If acceptance of your appointment to the Educational Committee will help the Cause, my answer is "Yes." For certainly everyone with any real interest in the welfare of the Refrigeration and allied industries should heartily support your attempt to bring some "pressure" to bear.

I have already, on my own initiative talked a great deal about this problem. Having had invitations to speak before several local clubs recently I have taken the opportunity to point out the predicament being created for us by the present Washington policy. Among the groups on my list have been two Kiwanis and one Rotary Club and they particularly have seemed to appreciate the gravity of the situation.

Our own people here have of course been reached on several occasions.

Night before last, for example, on the occasion of our Annual Bureau Banquet, we had upwards of 300 dealers, distributors, and sales

people present when this problem was again brought out. Incidentally, we had the most inspirational meeting since the inception of this Bureau nine years ago. All of our leading distribution and factory agencies in Southern California were represented at the meeting and executives from some 10 of them were heard during the evening.

The purpose of this gathering was to dispel (particularly for the salesmen) as much as possible some of the gloom that seemed to cloud the outlook for the future. We presented the fall advertising programs of our Bureau, had a great talk on taking advantage of the new term selling restrictions, heard about the power situation from local utility men, then after short talks by the factory and distribution representatives, we wound up with the finest inspirational talk any of us had ever listened to. This was given by Dr. Fredric P. Woellner, UCLA educator, bank director, civil service commissioner of Los Angeles, etc., etc. It certainly turned out to be a rather remarkable meeting.

From a practical standpoint, you will be interested to know that we announced our Bureau policy covering advertising and promotion for the balance of 1941, and for 1942. We definitely plan to spend more money this fall and next spring, for example, than we have ever spent before. Our usual activities, such as our Electrical Show set for the 25th of November, will be pushed harder than ever. This policy drew tremendous acclaim from the manufacturer and distributor men and as a result, when they had their innings, we were promised much more advertising support for this territory than had appeared likely, a short time ago.

Well, this is just a rambling sort of letter, but perhaps it will convince you that we really are interested in trying to keep the best foot of refrigeration forward in this territory.

J. CLARK CHAMBERLAIN

'I STARTED TO WORK SOMETIME AGO'

Bonded Refrigeration Service
Associates
29-31 Essex St.
Youngstown, Ohio

Editor:

I will be very happy to serve on the committee, and do all that I possibly can to further the interests of our industry. Incidentally, I started to work sometime ago, writing letters and sending telegrams to our U. S. Senators and Congressman, and urging our customers and suppliers to write or wire the powers that be in Washington, to have them recognize the needs of the refrigeration industry, and work out a plan whereby we could get a priority on replacement parts and refrigerants. You can count on me to do all in my power, to further our mutual interests.

E. S. WRIGHT

HAYNES HITS HARD IN LETTERS TO WASHINGTON

Haynes Modern Appliance
"The Complete Appliance Store"
529 W. Washington St.
Charleston, W. Va.

Editor:

We wish to commend your industry paper on the fine work your reporters and editorial staff are doing in seeking to remove refrigeration obstacles. I was unable to attend your meeting of Sept. 10, but I am anxiously awaiting this week's edition of the News to see what was decided and what other retailers' opinions are.

I am 100% behind the move to acquaint our hard-headed government officials of the serious need of refrigeration and I have been sending letters to this effect to key men in the defense program as fast as possible. I am sending you under separate cover a copy of the letter which I sent to the following members of congress from this state: Senator Harley M. Kilgore, Senator Joseph Rosier, and Representative Joe L. Smith of this sixth district. I am also attaching a copy of the replies I received.

I am also sending you a copy of the letter which I have sent to these key men: Priorities Director E. R. Stettinius, James MacPherson, assistant director of division of purchases; C. W. Shearman, chairman of air conditioning and refrigeration section of industrial advisory committee; and key men among the members of the various sub-committees.

We have an uphill fight to gain removal of priorities and production cuts, but we will succeed I believe if we can get the backing of labor since labor "virtually runs this country." Labor can strike when, where, or for any reason they take a notion. I think a good line of attack might be to mention if a satisfactory method of curbing strikes in defense industries was worked out, no refrigeration production cut would be necessary.

Our sales of refrigerators have dropped off sharply this month despite the press report that sales are holding up. However, sales of other appliances have helped cushion this drop. I believe that there should be control of instalment buying but I do think that the 20% we have to demand down is exorbitant. Ten per cent on furniture and ice refrigerators would be more like it.

Will you please send me the names of any other important personages in the defense program who you think it would be advisable to communicate our objections to.

We wish you the best of success in your drive to eliminate obstacles blocking the production of refrigerators.

SAMUEL H. HAYNES,
Manager

COPY

Mr. James MacPherson
Division of Purchases
Office of Production Management
Washington, D. C.

Dear Mr. MacPherson:

REFRIGERATION IS ESSENTIAL TO AMERICA'S HEALTH!!!!

You may say this is a known fact but recent discriminating measures placed in force by our federal government have caused the refrigerator and appliance retailers of America, some 50,000 strong, to rise in body and protest and demand immediate revision of existing unfair laws, rulings, and priorities.

For the past six months the people of this nation have been subjected to a tremendous barrage of speeches, newspaper articles, radio talks, and government bulletins about protecting "the precious vitamins" in our foods. This is rightly so, since the success of any gigantic venture the size of the defense program the government is now launched on requires healthy, alert, energetic workers to bring it to a successful conclusion. However, has the government stopped to consider the most important safeguard of the vitamins that are so vital to national defense? The answer is emphatically NO!!!!

Adequate, properly constructed, safe mechanical refrigeration is the only method by which vitamins can be

preserved safely in the working man's home.

The government's answer to this increased need for national defense of refrigeration is as follows:

1. The classing of mechanical refrigerators as "DURABLE GOODS."

2. Priorities on essential materials needed in the construction of any type mechanical refrigerator.

3. Cut of 50% in production of refrigerators.

4. Strict instalment terms of 20% down and 18 months instalment time.

5. Even the suggestion and possible demand that the manufacturers revert to wooden cabinets.

A country must look to its home defense just as much if not more than to its offense as Great Britain has found by experience. The refrigerator in the home of the defense worker to protect his health is just as important as the tank or gun or airplane that comes off the assembly line he is working on. Remember that!

About a month and a half ago, Price Administrator Leon Henderson said, there must be a cut of 35% and eventually 50% in the production of refrigerators and other household appliances. In reply, in a nationwide radio address another administration defense official contradicted Henderson and said that there was no need for a cut in production of refrigeration and only a need for a cut of 20% in automobile production. However, a defense priority has been clamped down and production cut 50%.

The ice refrigerator has now been restored to an honored place. The government officials have now agreed with the ice maker manufacturers and overlooked leading scientists and health officials in agreeing that ice refrigeration is best. They have overlooked the fact that when temperature rises above 50° bacteria in foods sets in as in ice refrigeration with temperatures coming and going. They have overlooked the fact that they have mechanical refrigerators in their own homes. Please take note of the following:

1. No cut whatsoever has been made in the production of ice refrigeration manufacture.

2. Ice refrigerators have not suffered any priorities on necessary materials.

3. Ice refrigerators can be sold under the new instalment restrictions with 10% down while mechanical refrigerators have to have 20% down.

Why? WHY? WHY? Why this discrimination, this favoritism? The evident answer—POLITICS.

Is it patriotic to allow the nation's refrigeration facilities to deteriorate? Is it patriotic to let hard-headed interests use "Defense" to feather their own nests, and to obtain competitive advantages?

It is not only becoming increasingly apparent but a "disgraceful" fact that our federal government is flooding the country with propaganda aimed at convincing consumers it will be "unpatriotic" for them to buy refrigerators. It will be unpatriotic for them to preserve the health of their husbands and sons working in defense industries by preserving the foods properly that they eat. Thank the lord, the people in this country still have a mind to think with and have used it and are continuing to buy refrigerators to protect their foods as any human would do.

OPM's Advisory Committee for Air Conditioning and Refrigeration as I understand it has the job of turning the manufacturing facilities of these industries into production of defense goods. However, when one member of the OPM committee was asked if the agenda would include consideration of dealer problems, he received a negative answer. That would be "outside the area" of the committee's activities. The committee is concerned with manufacturing, not distribution.

In other words, the dealer might just as well close his doors, pack his grip, and either join the army or head for the poor house. That's Americanism! Like the devil it is, it's Nazism, fascism, and communism.

Since the hard-headed interests directing America's defense program are disregarding the acute refrigeration needs of the citizens of the United States who Pay Their Salaries, and don't forget that, and who are elected or appointed by the people, to act for the people, we have one last resort, and that is for labor to join with us in awakening our federal government to the acute need of refrigeration. Labor runs this country and at least one labor union has already joined the fight. Protest against "arbitrary curtailment" of household refrigerator production has been sounded by the CIO affiliate representing workers in Frigidaire's plants in Dayton.

The labor unions in this country are permitted freely to strike when, where, or for any reason they please, and only in rare cases does the government take any serious action against them. One labor strike can affect the defense program more than a year's production of refrigerators.

You probably think this talk of how vital refrigeration is is "bunk." However, please note, this United Press dispatch from Tokyo:

TOKYO, Aug. 23—One person (Concluded on Page 5, Column 1)



For Smooth, Quiet, Economical Performance

Above, Century Squirrel Cage Motor driving an air conditioning blower.
At right, Century Squirrel Cage Motor driving a compressor.

Use CENTURY MOTORS For ANY Air Conditioning Need

A Century motor drives the blower fans on this room cooler and heater unit.

● The correct motor drive is an important part of any air conditioning installation you may buy, install or specify. For to obtain maximum performance, the electric motor must accurately meet the starting, acceleration and running requirement of the machine, as well as be adapted to operate successfully in its particular surroundings.

For years, Century Motors have been designed and engineered to meet the demands of the entire air conditioning industry. Whether you need motors for unit heaters, unit coolers, stokers, fans, pumps, blowers or compressors, you'll find the right motor in the complete Century line of fractional and integral sizes—available in a wide variety of types.

For instance, Century Motors provide these advantages:

- ✓ Unusual freedom from electrical and mechanical vibration.
- ✓ Century's unique bearing bumpers reduce chatter from V-belt irregularities.
- ✓ Cushion base mountings isolate possible vibration from your installation.
- ✓ Quiet starting, quiet acceleration and quiet running, at all times.

The torque necessary to handle modern refrigeration compressors.

Your nearest Century Motor Specialist will gladly help you and your engineers to select the proper Century

Motor to meet your specific application requirements. You'll find it pays to call him in—today.

CENTURY ELECTRIC COMPANY

1806 Pine St., St. Louis, Missouri

Offices and Stock Points in Principal Cities



One of the Largest Exclusive Motor and Generator Manufacturers in the World

Letters Tell Why Refrigeration Is Important In Defense Effort

(Concluded from Page 4, Column 5)

died and 60 were seriously ill today of food poisoning as the result of eating food served in a restaurant the refrigeration of which was alleged to be faulty. As 60 persons were made ill two weeks ago by food served to them in a restaurant, the police were expected to start a campaign against unsanitary food conditions.

There is no telling how many individual cases of food poisoning in the home has come to light which has not made the international news services. If nothing is done about the curtailment of America's refrigeration facilities, we can look for this news item next year.

NEW YORK CITY, April 23—Nine persons are dead and 83 are in New York hospitals seriously ill as the result of eating food served in a local restaurant yesterday, the refrigeration of which was discovered to be faulty. Ten of those seriously ill are not expected to live. Since 42 persons were made ill in the same restaurant last week from food poisoning local authorities questioned the management of the restaurant. They reported that the restaurant's refrigerating equipment broke down about 10 days ago, and since they could not secure parts to repair their equipment or new equipment to replace it due to defense priorities, they were forced to use makeshift methods to keep their foods cold.

The responsibility of providing the people of this country with proper refrigerating facilities lies in the hands of your committees and it is up to you to inform defense officials of the acute need for refrigeration. Nickel and aluminum are being allotted to the radio industry. High priority ratings have been granted farm machinery. Dairy machinery has also been given high rating. These industries, which are completely united, got what they wanted by exerting pressure. The refrigeration

sion of priority and production cuts and I will personally keep my customers and friends informed of your actions to help correct this grave threat to American health.

The refrigerator retailers will shortly launch a nationwide newspaper campaign to acquaint the people with this disgraceful situation. Prompt action will forestall the tide of public opinion.

THE EYES AND EARS OF AMERICA ARE UPON YOUR OFFICE. WE ARE WAITING!

SAMUEL H. HAYNES, Manager
Remember — "REFRIGERATION IS ESSENTIAL TO AMERICA'S HEALTH!!!!"

WE WILL YIP TO HIGH HEAVEN

(COPY TO REFRIGERATION NEWS, 5229 CASS AVE., DETROIT, MICH.)
Mason's Appliance Store
Tigard, Ore.

Senator Charles L. McNary
Senator Rufus C. Holman
Representative Homer D. Angel
Representative James W. Mott
Dear Senator:

When a refrigerator will not run because some essential part is broken

down and cannot be replaced, someone's health is liable to suffer. Perhaps the baby's milk spoils, perhaps meat becomes contaminated, or some other equally unnecessary condition takes place that endangers the health of people living in circumstances that make refrigeration necessary.

We are engaged in the sale and servicing of refrigerators. Gradually, we find that new refrigerators are becoming scarce. That means old ones have to be kept in condition. At the present time we cannot secure many important parts to keep those old ones going.

Chiefly, right now we cannot secure copper or brass parts. There is no "Freon" refrigerant to be had. There is no carbon tetrachloride with which to make "Freon," nor with which to clean out and make useful again the old compressors that come to us for service.

We know, and you know, that the basic materials of these needs are available and that some hopeless bungling somewhere along the line is making these shortages.

Perhaps human life here at home isn't valuable. Perhaps it's up to helpless infants and worried mothers and fathers to put up with a senseless program of economics that makes their domestic problems into

nightmares. I don't think so, however, and I am sure you do not.

We are a small business. We can and we will forego the sale of new merchandise and never yip one bit in this thing... but, Senator... we can yip to high heaven and will unless parts and materials are released for such instances as the above.

I expect, as do dozens of my contemporaries in this field, to hear from you in the affirmative on this matter. We are unorganized, but that can be remedied and we feel that in this great America of yours and mine, our voices will be heard.

A. L. MASON

'GLAD TO ACCEPT THIS APPOINTMENT'

R. F. Trant, Inc.
Distributor
Norfolk, Va.

Editor:

I would be glad to accept this appointment, and can assure you that we are very much interested in promoting this activity and you may count on me for my full support.

R. F. TRANT,
President

Today,

YOU'LL MEET NO SALES RESISTANCE TO A REGULAR CHECK-UP SERVICE

Read how you can build future business, insure the normal operation of equipment employing "Freon-12", and create customer goodwill.

"Refrigeration Is Essential" Labels Available for Use On Letters & Packages

Attractive red and white stickers carrying the slogan "Refrigeration Is Essential to America's Health and Efficiency" are available for use on letters and packages sent by members of the refrigeration industry.

Use of these labels on all correspondence is recommended by Tecord as a part of its general publicity campaign to awaken the country to the essentiality of refrigeration.

Perforated sheets of these labels have been printed by AIR CONDITIONING & REFRIGERATION NEWS and are now ready for distribution to companies wishing to use them on their correspondence.

The cost of these labels is:

25 sheets—825 labels—\$1.00
50 sheets—1,650 labels—\$1.75
100 sheets—3,300 labels—\$3.00

Orders accompanied by remittance should be sent to Business News Publishing Co., 5229 Cass Ave., Detroit.

tion industry did not want to resort to pressure. But today in America we have government by pressure groups. So, to continue its great contribution to America's health, the refrigeration industry is forced to rise in body and press and demand revisions.

The refrigerator and appliance retailers of America, 50,000 strong, with nearly a million employees, and more than 50,000,000 customers demand of your committee and office the following acute, needed, and vital revisions:

1. Reclassification of mechanical refrigerators to remove it from the "durable goods" classification and place it in the "vital products"—vital to the health of the United States citizens.

2. Removal of all restrictions and priorities on the production of mechanical refrigeration.

3. The immediate removal of the 30% cut ordered in production.

4. The opening of idle copper and other mineral mines which are being permitted to lie idle despite their acute need.

5. The stoppage of government propaganda against the purchase of refrigerators and instead the ac-

DOCTORS ARE WELCOMED when the patient is worried. And you're the doctor today for every user of air conditioning and refrigeration equipment. More than ever, users today realize the value of preventive measures—conservation of refrigerant—to prevent losses before they can occur.

A great conservation of "Freon-12" can be made in the servicing of equipment and in handling. If present waste and losses of "Freon-12" are eliminated, the saving will compensate for existing shortages—make "Freon-12" available for new equipment that in turn means more business for you in the years ahead.

ness for you in the years ahead.

By promoting a regular check-up service you can help the entire refrigeration industry and at the same time build up customer acceptance of maintenance service that will carry over to normal times.

Let us help you...

We recognize that there is no substitute for sound practical experience—and that there is literature available on the handling of refrigerants. But there are certain major causes of waste and losses. We have prepared a new booklet covering these points in detail. This booklet is designed as a helpful guide to assist you in making the most of your new opportunity—a regular check-up service to reduce waste and losses.

Send for it now!

MAKE THE MOST of your new opportunity. Take a tip from the Chinese Doctor—keep your patients well. Send for service manual right away!



KINETIC CHEMICALS, INC.
TENTH & MARKET STREETS
WILMINGTON, DELAWARE

CHECK LIST

FOR CONSERVATION OF "FREON"

Do not overcharge system.
Weigh a sufficient amount of "Freon" for efficient operation.

Test system for tightness.
Use dry CO₂ or nitrogen rather than "Freon."

Evacuate shipping cylinders completely.
Condense the vapor and salvage the refrigerant.

Do not purge "Freon" into the air.
Pump the "Freon" into the receiver or into a clean, dry cylinder for reuse.

Look for accumulations of oil
which have leaked from the systems. They may indicate the presence of a leak.

Use a Halide lamp or torch
to locate leaks.
It gives instantaneous reaction to even minute leaks.

Check systems at these points:
Gaskets on the crankcase cylinder
Crankshaft bearing housing
Cylinder head
Stuffing box or shaft seal
Valve stems and pads
All connections (threaded, flared, welded, brazed or soldered)
Control devices
Oil separators
Compressor
Condenser
Evaporator
Auxiliary control apparatus
All castings and tubings

**"Freon" is Kinetic's registered trade-mark for its fluorine refrigerants.

FREON

REG. U. S. PAT. OFF.

safe refrigerants

Air Conditioning & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office;
Established 1926 and registered as
Electric Refrigeration News

F. M. COCKRELL, Founder

Published Every Wednesday by
BUSINESS NEWS PUBLISHING CO.
5229 Cass Ave., Detroit, Mich.
Telephone Columbia 4242

Subscription Rates
U. S. and Possessions, Canada, and all countries
in the Pan-American Postal Union: \$4.00 per year;
2 years for \$7.00. All other foreign countries: \$6.00
per year. Single copy price, 20 cents. Ten or
more copies, 15 cents each; 50 or more copies,
10 cents each. Send remittance with order.

GEORGE F. TAUBENECK,
Editor and Publisher

PHIL B. REDEKER, Managing Editor
THEODORE T. QUINN, Assistant Editor
Editorial Staff: JIM MCCALLUM and
C. D. MERICLE

JOHN R. ADAMS, Business Manager
JAMES B. SMITH, Advertising Manager
PAUL PARK, Asst. Advertising Mgr.
ED HENDERSON, Circulation Manager
M. HELEN COCKRELL, Credit Manager

On leave of absence for military service:
RICHARD J. NEUMANN, GEORGE L. COLLINS,
ROBERT P. NIXON, and JACK SWEET

Member, Audit Bureau of Circulations
Member, Associated Business Papers

VOLUME 34, No. 6, SERIAL No. 655
OCTOBER 8, 1941

Copyright, 1941, Business News Publishing Co.

Refrigeration Is Essential To America's Health And Efficiency

If You 'Keep Your Shirt On' You May Lose It

FROWNS were directed at the writer not long ago when he attended a meeting of trade paper publishers. "You're scaring advertisers to death," they cried. "Pipe down about all this priorities and metals shortages business, or you'll run us all into the red. Why don't you try to look on the brighter side of things?"

Our only answer to that is that if we withhold vital information from our subscribers we aren't keeping faith with them. Subscribers pay the NEWS \$4.00 a year for all the information affecting their business, and the NEWS values its reputation for fearlessness and honesty above all else. We simply have to call shots as we see them, even if it does cost us money.

WAITING TO SEE HOW THEY COME OUT

All trade papers serving the durable goods field have been hurt the last few months. The NEWS is no exception. Some of our best advertisers, and most of the spasmodic ones, have stopped their advertising "until they know better how they're going to come out" (in the allocation of materials and manpower).

We can't blame them for that. It's their business. Our business is to report the news, and to analyze the trends, to the best of our ability and with utter candor. It has never been the policy of the NEWS to kid its readers, or soft-soap the manufacturers. In the long run, we believe this frankness will pay.

The plain facts are these: About 10 months ago the Washington Brain Trust put the "finger" on consumers durable goods. They are marked for gradual extinction, for three reasons:

(1) To make more metals available for armaments.

(2) To force manufacturers (and the skilled labor they hire) into the manufacture of armaments.

(3) To build up and dam up an enormous need and desire for consumers durable goods which will be helpful in checking a post-war economic collapse.

As to arguments numbers one and two, it is difficult for a patriot to question them. Argument three, however, has a hole in it big enough to admit passage of a panzer division. The fallacy is this:

If consumer goods are "erased" for the duration of the war, and nothing is done to keep alive the distributors and dealers of such goods, the mere production of such goods after the war will be practically meaningless in the post-war economy. Salesmanship and merchandising will then be the "bottlenecks," just as raw materials and production are now.

Through extraordinary contacts in Washington, which have been a-building since 1934, the NEWS got wind of this "death sentence" for the industry toward the end of 1940. Beginning with the first issue of 1941, we began yelling editorially.

Frankly, if the NEWS had been serving the toy industry, or the horse-shoe or corset stay business, we might not have had the stomach to put up a howl. Probably we would have made quiet preparations to enter another line of endeavor.

REFRIGERATION IS TRULY ESSENTIAL TO AMERICA

But it was apparent to us, as it is to anyone acquainted with what refrigeration does for America, that we were connected with a consumers durable goods industry which by its very nature was actually and truly "essential to the health and efficiency of America."

It was our honest conviction that to neglect to call attention to the vital nature of refrigeration's services would be truly unpatriotic.

So the NEWS, along with many associations, many firms, and many individuals within the industry, has been working to educate the Powers-That-Be in Washington as to the essentiality of this industry.

Next to the lack of understanding of the Washington bureaucracy, our toughest obstacle has been apathy within the industry. Plus false prophets.

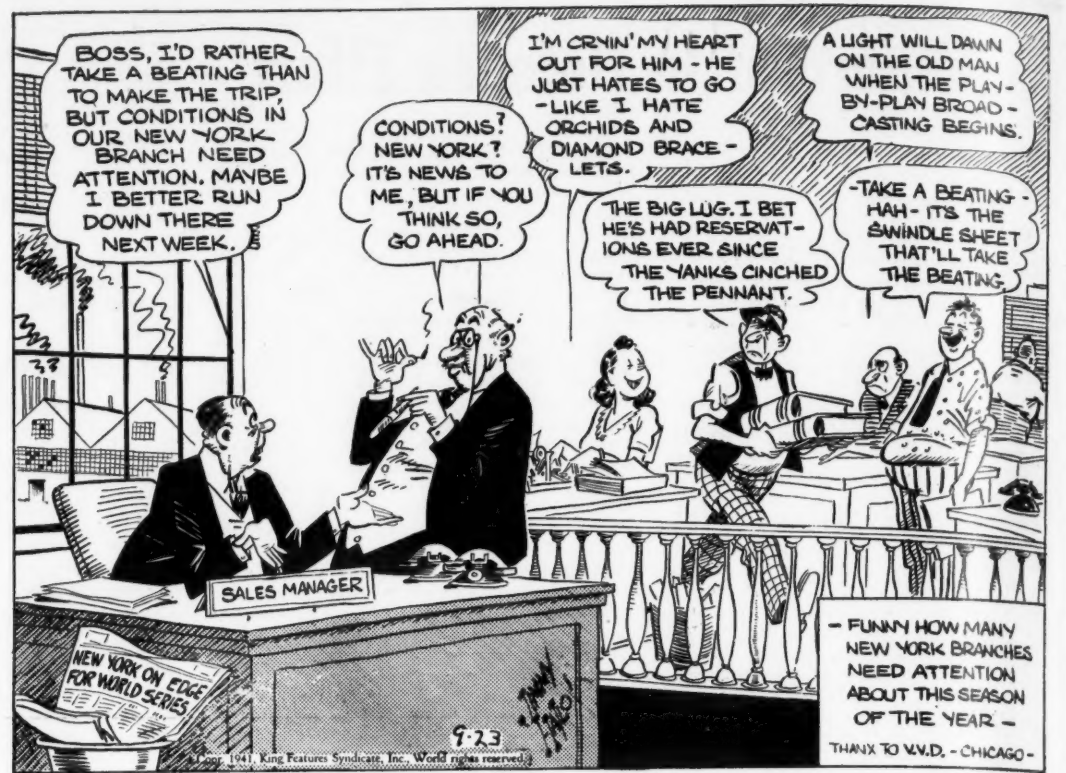
THEY LAUGHED UNTIL U. S. SAT—ON THEM

For example: One week after the NEWS predicted shortages of aluminum, Stettinius announced that there would be plenty of aluminum for everyone. Again, shortly after the NEWS predicted shortages of, and priorities on, steel, copper, rubber, nickel, and pig iron, the American Society of Refrigerating Engineers met in Cincinnati, and a research scientist of repute told the society that new sources of some of these materials—and plentiful substitutes for others—would enable the refrigeration industry to continue with capacity production. Rarely has our stock fallen so low.

Again and again this year the NEWS has been laughed at as a chronic see-er of ghosts—and over and over our scoffers have been brought abruptly face-to-face with the unpleasant facts.

All of us would have been happier

They'll Do It Every Time . . . By Jimmy Hall



if the NEWS had been wrong. But two facts still remain:

(1) The consumers durable goods industries are being subjected to slow strangulation—which throttling is "proceeding according to plan."

(2) Refrigeration, among all the consumers durable goods, has the most valid case for survival. This case, however, has not as yet been adequately presented.

In the current issues of three monthly magazines devoted to the appliance industry, the editors have written soothing editorials, editorials which present some pleasant wishful thinking about the appliance business, and attempt to allay the fears of the appliance industry as to its future during the war.

All three say, in effect, that the shortage of metals has been exaggerated, that even after production cuts there will still be plenty of appliances for dealers to do a profitable business, and that the ingenuity of manufacturers will provide substitutes for materials under priority.

One of these editors, a man for whom we have a real personal fondness, and for whose judgment we ordinarily maintain an enormous respect, entitles his editorial, "Keep Your Shirt On."

Another one tells you that these shortages of metals are only temporary, and that soon appliance manufacturers will be able to get whatever they need.

THE JOB THAT LIES BEFORE THE INDUSTRY

In normal times it would not be cricket to quarrel with these estimable gentlemen. It would not even be "good business." But these are not only abnormal times, they are exceedingly critical times. And we would not be playing fair with our subscribers if we did not tell you dealers and distributors that this time next year these three editors are going to look mighty foolish,

UNLESS

Dealers and distributors everywhere begin exerting pressure on their Congressmen, and on public opinion, to the effect that "Refrigeration Is Essential To America's Health and Efficiency."

All of us would prefer to believe that Truth and Justice and Idealism permeate our Government. Actually, however, politics are still in the saddle.

And it is necessary to play politics for truth to get a fair hearing.

If this editorial has been immodest, please forgive us on the grounds that immodesty has been necessary to prove our access to information "straight from the feedbag" in Washington. We've been shouting all year, and we shout again now:

"Of all consumers durable goods, refrigeration has the most valid reason of survival during this war effort; but it will get the axe if every man in the industry doesn't add his voice to the few now being heard in Washington."

Substitutions for strategic metals, as we have pointed out over and over, can be the salvation of the industry. In this we concur with the belated, becalmed, bemused editors of the monthlies. However, even substitutions and the ingenuity of manufacturers will be of no avail unless our industry is declared "Essential."

PRIORITIES ON LABOR ARE COMING

The next priorities, you see, will be on skilled labor and management.

The situation is far from hopeless. Those who make and sell refrigeration equipment can congratulate themselves on being in an honestly essential industry. But that essentiality will never be proved if men sit back and wait for manufacturers to "work something out," Hitler to commit suicide, or Franklin D. to set up another board.

In other words, if you "keep your shirt on," you may lose your shirt.

Encouragingly, reactions to the announcement of the Temporary Educational Committee of Refrigeration Distributors have been enormous. Our mail man has never before been so stoop-shouldered. These letters say:

"Count on us for time, for money, for anything which will help put over the story that refrigeration is an essential industry."

Subscribers to the NEWS are not being fooled by honeyed words, or by calm Buddhas contemplating their navels. They realize their precarious position, and they realize the danger to America which would follow the suspension of production of refrigeration equipment. They are ready and eager to go to work in the Cause.

And that attitude does offer ground for justifiable optimism.

Super-Market's New Open Refrigerated Serve-Self Dairy Bar Speeds Up Sales



No longer do customers have to wait in line to buy dairy products at the Food Center Super Markets in St. Louis. This specially designed case is open, a "blanket" of 45° air being maintained over the food products to prevent the warmer air of the market from reaching them.

ST. LOUIS—One obstacle in the way of high-speed food retailing in super-markets—the refrigerated Dairy Bar section which merchandises cheese, butter, milk, etc.—has been overcome at the Food Center Super Markets here through use of a new type of "self-service" Dairy Bar, which, although refrigerated, is entirely open and convenient for the serve-yourself customer.

The case is 11 feet long, and has the double advantage of eliminating the necessity of the customer sliding back heavy glass doors, and encouraging her to buy several refrigerated dairy products simultaneously.

"This part of our markets was formerly a bottleneck," says A. J. Molasky, president of the super-market chain. "It was nothing unusual for customers to line up in front of the former Dairy Bar to extract merchandise, particularly during rush hours. With our new open case, it requires no more effort to select two or three dairy products than it does to remove a loaf of bread from the bread rack."

STEPS UP RETAILING

The case was worked out by Mr. Molasky in combination with Hussmann-Ligonier Co. of St. Louis, primarily to meet the "speed" requirements of mass food merchandising in the eight markets operated by the company. One of the largest super-market chains in the Middle-west, the Food Centers are founded on high speed service and low prices—a pattern into which the new case has fitted ideally.

There is a 30-inch opening along the upper face of the case, which slants back at a 35-degree angle. A low glass panel along the front edge serves to retain merchandise without hiding it. Shown are packaged cheese, sliced cheese in cellophane wrappers, and lard, butter, oleomargarine, and eggs. A 36-inch shelf with a step at the rear of the case will show as much merchandise as the former upright case, every item at arm's length even in the extreme rear.

Refrigeration is provided by two banks of coils along the upper surface of the case, concealed by a slight canopy. Operating from a compressor in the basement, these coils circulate refrigerant at high speed, forming a "blanket" of 45° air over the dairy products on display. Location of the coils also has the effect of forming a "ceiling" of colder air through which the warmer

air of the building does not penetrate. (All Food Center markets are cooled by evaporative conditioning.)

Tests show that even at peak periods, when perhaps a thousand persons are in the market, temperature remains at low enough level to protect perishable foods. For reserve stock, each of the two cases installed has three 4-foot refrigerated storage sections. The more perishable cheese, including a daily "special" of sliced bulk cheese packaged in cellophane wrappers, is shown in porcelain trays atop the floor-level storage cabinets, thus retaining cold underneath as well as over the stock.

The new style refrigerated cases are located to the right of the meat market, so that the customer can step from the meat case while her purchase is being cut and wrapped to the Dairy Bar for cheese, butter, etc. Three units, consisting of two cases each, have already been installed in Food Center stores, resulting in 50% quicker turnover of dairy products customers.

New Self-Serve Dairy Refrigerator Added By Tyler Fixture

NILES, Mich.—Development of a new self-service dairy refrigerator, equipped with upper and lower sliding glass doors for efficiency and easier servicing, has been announced by Tyler Fixture Corp.

Available in 8 and 12-foot lengths, with capacities of 80.3 and 123.5 cu. ft. and 43 and 66 sq. ft. shelf areas, respectively, the new case is of welded steel construction, with all seams sealed against moisture. In addition to milk, cream, and butter, the case also may be used for storage of all types of cheese, eggs, oleo, lard, soft drinks, etc. Design of the case is such as to occupy a minimum of floor space.

Extra heavy coiling is provided by fin coils in both upper and lower compartment, and easy-sliding doors with stainless steel trackways and rollers on door bottoms provide easy access to either compartment. Shelves are adjustable to any desired position.

Porcelain enamel finish is used both inside and on the exterior cabinet front for greater sanitation. Fluorescent lighting is employed in both 8 and 12-foot cabinets.

... *THIS* is where we go from here!

To the old question "Where do we go from here?" there is only one answer. America says we go forward. So says American industry. So say we at Universal Cooler...New times bring new problems. To the solving of the share of the problems that come our way... involving new uses of mechanical refrigeration...we bring the experience of twenty years, and a twenty years' habit of finding out how well, and how fast, we can do the job.

UNIVERSAL COOLER CORP.

Automatic Refrigeration Exclusively Since 1922

MARION, OHIO

Universal Cooler of Canada, Ltd., Brantford, Ont.



WHY DOESN'T

Some Manufacturer Build the Right Kind of Box?
Asks Liquor Dealer Who Has His Own Ideas

SAN FRANCISCO—Why, asks A. Foley, proprietor of a liquor store at 514 Larkin St. here, do not firms that build refrigerated cases take advantage of the needs of beer retailers and design a box especially for them?

Mr. Foley has a reach-in beer box which he especially designed for the store because he could find nothing that exactly suited his purpose. This holds 117 cases of beer. He points out that it was only after experience with other boxes that he knew what was needed by any liquor store having a volume of beer business. In consequence, he passes on the following essentials to refrigeration salesmen who may be called upon to design such a box:

First, eliminate odd-case shelving. The box should be designed so that

it will take a full case of every brand carried by the store. This materially reduces stockkeeping time, because the clerk or stock man does not then have to bring up a full case from the back room and carry back a half case, but can move the entire case into the box. Furthermore, this reduces breakage from half-empty cases in the back room, and also cuts down pilferage—most of which occurs when there are broken lots around the store.

Second, design the box to properly rack up bottles and cans. Shelves in Mr. Foley's case are divided by low partitions, which separate the various brands. In this way they do not get mixed up, and the clerk does not have to hunt for the brand wanted.

Finally, divide the reach-in box into smaller sections, each with a

door, rather than large sections with one or two doors. This is also an aid in stockkeeping and quick service. Each door of his box has a number on it; beer behind this glass is identified by the number in keeping records and stock.

While the above features undoubtedly increase the cost of the beer case to some extent, Mr. Foley has found that the "just right" box is worth more money.

'Last Sale Till War Ends' Brings Record Crowd

BOSTON—A "final sale" was staged here during August by the Cambridge Radio Center at 940 Massachusetts Ave., with reduced prices on all major appliances which are likely to be difficult to buy in months to come. The store, headed by Ronald Slocum, handles G-E, Frigidaire, Westinghouse, and Bendix lines, and realized the largest crowd in its history for this "last sale till the war ends."



SERVICE MEN Prefer *Artic* because of its

- ★ HIGH QUALITY
- ★ EASE OF HANDLING
- ★ DU PONT TECHNICAL ASSISTANCE



For information about nearest source of supply, write to:
THE R. & H. CHEMICALS DEPARTMENT
E. I. DU PONT DE NEMOURS & COMPANY (INC.)
Wilmington, Delaware
or National Ammonia Division
Frankford P. O. Philadelphia, Pa.

Pessimism Over is Unwarranted

By H. L. Andrews

Vice President, General Electric Company

ANY extreme pessimism over the future of the appliance business, particularly during the period of our national emergency, is unwarranted. No one is bent upon the destruction of business. On the contrary, we may expect that every possible constructive effort will be exerted, consistent with vital defense necessities, to support our internal strength, the national economy and every essential part of it. This policy is, in fact, imperative and indispensable to national defense itself.

As the momentum of the defense program accelerates we shall, of course, feel the pinch of priorities. Our resourcefulness may be tested to the limit but the results will not be and must not be fatal. To believe otherwise is to assume the failure of the whole patriotic program, which is unthinkable.

Wars always accelerate and crystalize developments which normally require many years. Out of this one will ultimately come a better civilization, improved national and international relations, greater hope and security and better business. New methods, products and processes will appear. They will be the natural results of intensive effort, courage, faith in the future and the determination to defend and preserve our way of life. The General Electric Company, for one, is hard at work in its research laboratories, engineering departments and factories meeting the demands of the present and preparing for what is to come.

New Duties Mean New Opportunities

Conditions are changing rapidly. All of us have new duties and new opportunities. In common with others, General Electric distributors, dealers and sales people face the new challenge of a *seller's* market. We find now that it is as much a privilege to buy goods as it is to sell them. But let us not make the mistake of assuming that selling will continue to be easy. There are a number of new obstacles to be overcome.

All of the old irregular practices are seen to be as unnecessary as they are unprofitable. They are especially wasteful and destructive in times like these. Products and services do not need to be given away or destructive competition fostered. Excessive trade-in allowances should be discontinued and customers

taught and helped to get the maximum usefulness from their products. Wherever possible, old and defective mechanisms should be kept working during the emergency. Fair profits should be made and gross margins maintained.

We Are All in the Same Boat

The resourceful, courageous dealer will find that the situation is not as bad as he may have feared. There is a better chance than ever to expect increased income. Unit values, prices and profits are a good reason to believe that volumes of business like those of 1939 may be reached—and these were not unprofitable years. In many instances other allied lines of business are being added to support overhead costs. Complete lines of products are being sold where only refrigerators or air conditioning units were sold. Special limits imposed on individual dealers are being removed. Dealers should be alert to new trends and opportunities and keep alert to new trends and opportunities. They should be successful and come through with flying colors.

Dependable manufacturers will not, in the emergency, to pretend to partiality or favoritism. They will not make or project rash promises on which they cannot stand. General Electric dealers will be at no disadvantage. They will mistrust glowing representations without corroboration or propose benefits to one at the expense of others. They will maintain integrity and mutual helpfulness.

Another, Brighter Day Is Coming

We in the General Electric Company exert our strength and purpose. The home fires must be kept burning. We must build richer, warmer, more enduring relationships with the people to whom we do business during the emergency and in the future.

er the Future anted

ndws

Electric Company

maximumfulness from their electrical prod-
defect mechanisms should be repaired and
ncy. Paid profitable service charges should
ntained

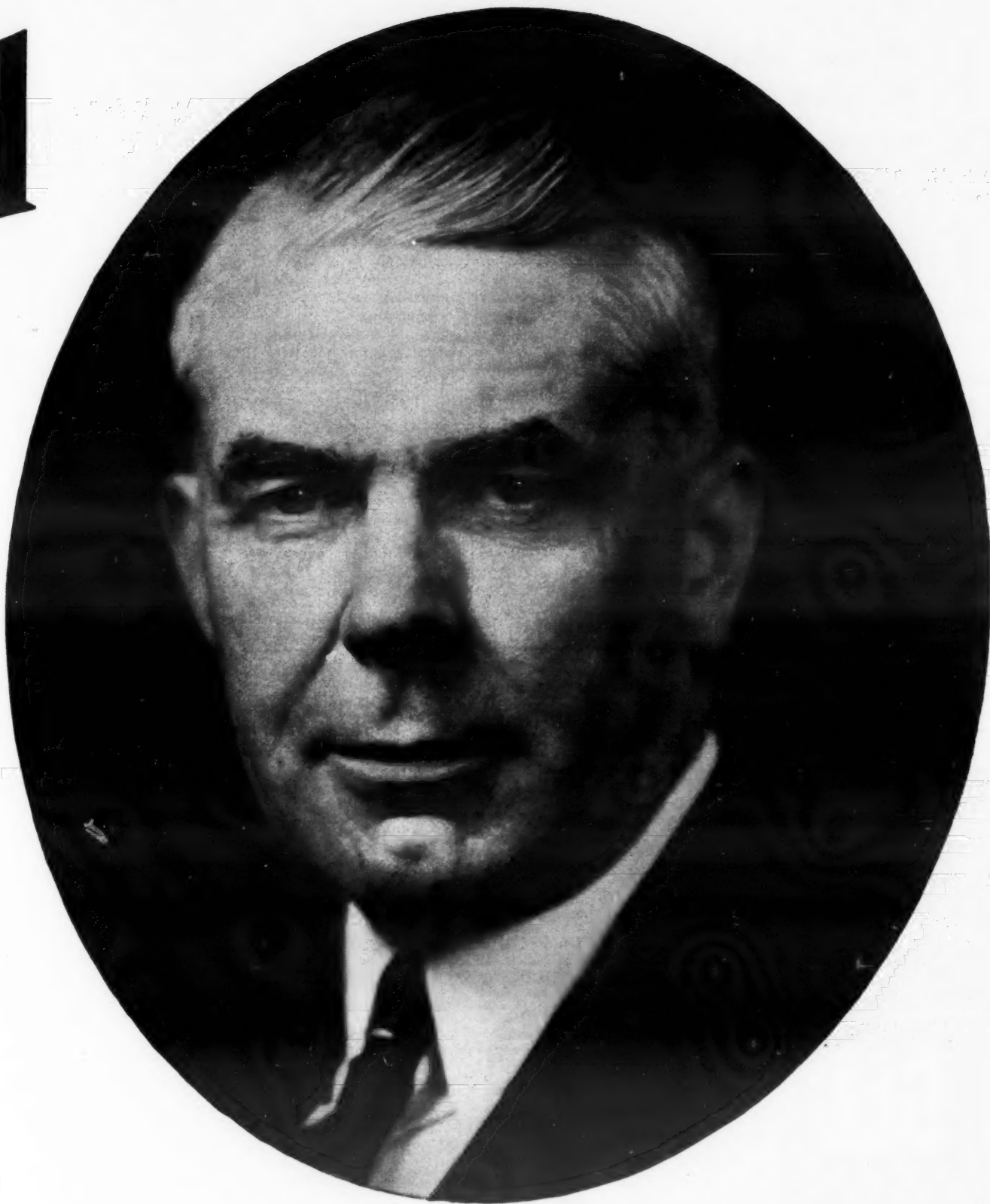
ll In Same Boat

aler would eventually that conditions are
d. Through better and greater service he may
values prices are higher. There is good
f business like those of 1939 and 1940 at least
e not profitable years for efficient operators.
nes of household merchandise may be added
complete items, for example, may be pushed
rs or no were sold before. There are no
ual incentive. Dealers who follow sound prac-
ds and opportunities will continue to be suc-
cumbing on.

ill not to capitalize on the misfortunes of
rtiality favoritisms in supplying products
ch they not make good. We are all in the
lers with at no disadvantage. Wise dealers
ions will run counter to the national interest
e expect others. It is a time for the utmost

ightday Is Coming

company exert our maximum effort in the
ense to us internal as well as external
e fires be kept burning. We shall seek to
during relationships with all the people with
the company and thereafter. And we shall



build upon the proven foundations of quality, service and fair dealing to all.
Another, brighter day is coming. We cannot better prepare for it than by striving
now for the most practical, highest possible standards.

★ ★ ★

*In future trade advertisements we shall discuss specific appliance sales problems
arising out of the national emergency, with suggestions for their solution.*

GENERAL  ELECTRIC

Russell Establishes Training Course To Teach Air Conditioning Salesmen

DAYTON, Ohio—D. W. Russell, president of the Airtemp division, Chrysler Corp., has established the Chrysler Airtemp Air-Conditioning Institute at the factory here, offering all Airtemp salesmen a complete correspondence sales course in air conditioning, both "cooling" and "heating."

Graduates are awarded diplomas certifying that they are "Air-Conditioning Specialists" or "Heating Specialists," according to the course completed. They are also supplied with a pocket replica of the diploma and with personal business cards carrying their newly earned title.

Prepared by Chrysler executives—experts in engineering, design, merchandising, and selling—the courses are clear, concise, and thoroughly illustrated, covering the important phases of the air conditioning and heating business. The course on cooling is divided into eight lessons. Each consists of four or six illustrated pages discussing one important phase of the business. The course in heating is divided into 12 lessons.

Each lesson is accompanied by a quiz sheet which the salesman answers and returns to the Chrysler Airtemp Institute in Dayton. There, each salesman's quiz is individually studied and graded. If the salesman's answers indicate any mis-

understanding, a special letter clarifying the points is written him. The first lesson is sent to the salesman immediately upon enrollment and remaining lessons go out as rapidly as he returns the quiz sheet covering the previous lesson. Both courses are designed to be completed in eight weeks.

Salesmen are charged the nominal enrollment fee of \$1 for either course. Many dealers offer \$5 to each man who graduates. To help keep up the interest of the men taking the course, dealers are urged to hold a meeting at least once a week, giving the salesmen an opportunity to compare notes, ask questions, and report progress.

Virginia Sales Show Big Gain in August

ALEXANDRIA, Va.—Dealer sales of electric refrigerators in Virginia Public Service Co. territory registered a gain of 510 units during August over the same month of 1940, totaling 1,729 units as compared to 1,219 last year.

For the first eight months of the year, refrigerator sales totaled 11,984 units, compared to 10,434 in the same period of 1940, an increase of 1,550.

Procedure For Installing Cold Plates In a Truck

Special Methods Specified For Tubing, Connections And All Testing

By A. F. Sawyer,
Dole Refrigerating Co.

In the installation of cooling plates for a refrigerated truck, plates should be selected for size from a table of various truck body sizes made available by the truck body manufacturer or the contracting firm.

Insulation must be of approved type, of sufficient thickness, and properly installed. For body temperature of 30 to 40° F. during 90° weather, 3 to 4 inches of cork equivalent insulation should be used.

For body temperatures of 30 to 40°, it is usual practice to mount plate vertically on side walls, with plate 1½ to 2 inches away from wall and top edge 6 to 8 inches down from ceiling. Hangers must be securely bolted to walls, preferably by fastenings incorporated into studs. It is not advisable to fasten hangers by bolting through body to outside.

A drip trough is used under each plate. If necessary to protect plates from load, guard rails should be placed about 1 inch away from plates.

Refrigerant connections to plates are of ½ inch O.D. copper and plates are set in place so as to best facilitate tubing connections. Flange should be toward wall. When two plates are mounted on one wall, tubes should be adjacent.

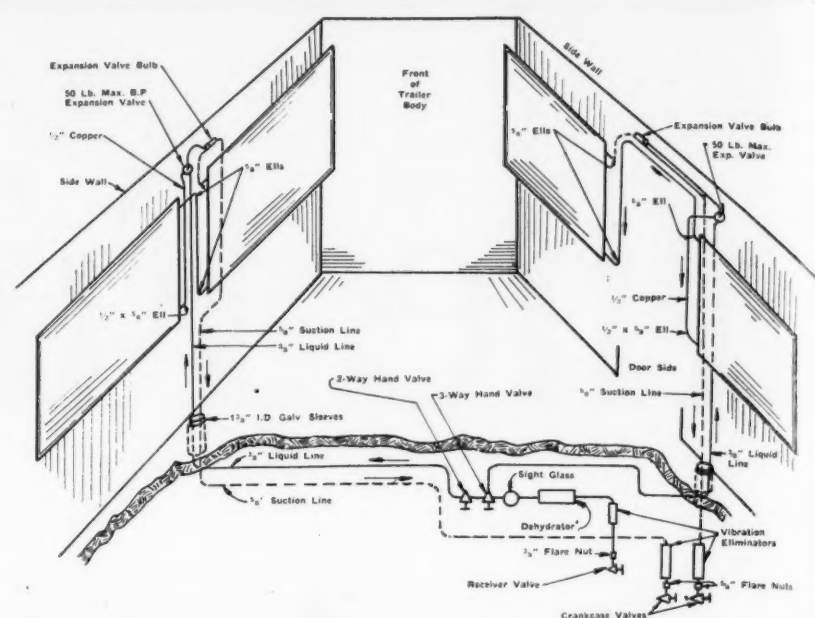
FITTINGS, TUBING

It is recommended that sweat type fittings be used throughout with the exception of connections at expansion valve, dehydrator, and sight glass.

Use 95 and 5 solder, clean fittings carefully inside and tubing outside, be sure tubing is round for an easy fit use brush to apply solder paste to inside of fittings. Do not use any more paste than necessary as an excess may cause expansion valve trouble.

Heat the fittings and tubing evenly with just enough heat to cause solder to flow freely. See that a fillet of solder shows evenly all around.

It will then be necessary to trace out proposed lines from condensing unit into body and decide where sleeves should be installed through floor. These may also take the ½ inch copper drain lines and are made up of galvanized iron about 1½ inch diameter. Make about 1 inch longer than floor thickness; flange over bottom end ¼ inch, but allow it to extend ¾ inch above floor. Solder in place. In the illustration shown



Diagrammed above is the tubing arrangement suggested for a truck refrigeration system utilizing cold plates. Note the vibration eliminators.

the units have two return line valves with ¾ inch flares so two ¾ inch return lines are brought back to compressor, one from each side of truck. Install vibration eliminators at this point to prevent trouble later.

From ¾ inch flare on liquid line valve also install vibration eliminator and place dehydrator and sight glass in liquid line. Next in liquid line are two hand valves, first a three way and next a two way. From the hand valves, run ¾ inch tubing up through each sleeve to expansion valves.

Expansion valves should be 50 lbs. maximum back pressure of 3,000 to 5,000 B.t.u. per hour capacity. Do not use larger than ¾ inch orifice. Use ½ inch flare nuts of frost proof type on expansion valve outlet line to plate.

FASTEN IT SECURELY!

All tubing must be securely fastened to frame underneath the body and advisedly placed on rear side of cross members to avoid dirt and possible thrown stones.

When all connections are made to plates clip thermostatic valve bulb on return line close to last plate. Blow out lines one side at a time and test for leaks very carefully. Clip all tubing securely and place galvanized guards where necessary to protect it. Since condensing unit is shipped with only a small holding charge add sufficient gas. Figure ¼ lb. of "Freon-12" per sq. ft. of plate one side and add a few pounds extra. Check oil level in oil reservoir after first day's run.

Put gauges on compressor, open valves, and start unit. Do not change expansion valve setting unless necessary. Observe pressures on high pressure gauge to be sure there is no air in system. Purge if necessary.

Condensing unit will operate at full speed until back pressure drops to 17 lbs. At this point speed will be reduced and will remain so until back pressure rises to 35 lbs. when it will resume full speed.

CHECK ON 'PULLDOWN'

Body should come down to 35° in three to four hours. If it does not cool properly check for supply of refrigerant by inspecting sight glass

in liquid line. If bubbles or a frothy condition shows, gas is probably needed. However, a clogged dehydrator can also cause this, so be sure dehydrator is free.

If gas charge is low, a gauge in low side may show back pressure of 0 lbs. or lower while one or more plates in body remains warm.

If gas is added use care to prevent over-charge. After adding gas, close hand valve on receiver and pump down low side, meanwhile watching high pressure gauge to avoid excessive pressures.

Use halide leak test on all connections to locate possible leaks. Instruct driver to check refrigerant supply daily by looking at sight glass. Further checking would be to watch for unusual melting off on plates.

It is very useful to have a dial type thermometer mounted on front of body so driver can watch temperature. This thermometer has a flexible element extending into body.

Detroit Contractors Complete Organization

DETROIT—Directors and officers of the Refrigeration Contractors Association of Detroit were re-elected at the first meeting of the organization as an incorporated association, held Sept. 17 in the Hotel Statler.

Named directors were: John Duncan, Duncan & MacNichol; Ben G. Hyatt, Copeland Refrigeration Service; James E. Perry, James E. Perry Co.; William G. Euth, Euth & Lambrecht; George C. Murphree, Refrigeration Maintenance Corp.; Harry Heberlee, Heberlee Ice Machine Co.; R. Whitsett, Gratiot Fixture & Supply Co.; Wilbur F. Mercier, Mercier & Clark; M. E. Burnett, Westerlin & Campbell; Chris Milazzo, Automatic Refrigeration Service; T. H. Mabley, Mechanical Heat & Cold, Inc.; and C. W. Page, Nash-Kelvinator Sales Corp.

The following officers were named by the directors: president, John Duncan; vice president, Ben G. Hyatt; executive secretary and treasurer, Frederick R. Bolton.

Plant Holds Open House

AIKEN, S. C.—An open house period lasting for several days was used to acquaint the public with the newly opened Aiken Cooperative locker plant here.



SEND FOR THIS FREE CATALOG—YOUR ROAD TO BIGGER PROFITS

Here's the brochure that has started hundreds of dealers on the road to bigger profits. Learn all about A-S-E Food UNIT Lockers—with first orders come so easily and quickly—why repeat orders are virtually automatic! It points out the profit possibilities in this new market—and shows you how you can get your share. Write today.

SOLD ONLY THROUGH DEALERS

ALL-STEEL-EQUIP COMPANY

Incorporated
110 KENSINGTON AVE. AURORA, ILL.

IMPURITIES CAN'T SURVIVE THIS OFFENSIVE

REMOVES ACIDS

DAVISON'S SILICA GEL



GREATER CAPACITY

TESTED in the laboratory and PROVED IN THE FIELD

Your drying agent must do more than just remove moisture! It must remove the acids, the corrosive compounds that cause excess wear and decreased efficiency. These trouble-causing impurities don't stand a chance because Silica Gel absorbs acids equally as well as it does moisture. It's easy to see why the system that's protected with Silica Gel operates more efficiently, gives years of trouble free service. That's why many prominent manufacturers, after exhaustive tests in the field, have standardized on Silica Gel.

Give your customers assurance of better refrigerator performance. Just use Silica Gel—the drying agent that gives you all the advantages you want—capacity, speed, freedom from dusting and better clean-up. Ask your jobber for your favorite dryer charged with Silica Gel—he can supply you.

SERVE America and Yourself!
Uncle Sam urges use of non-strategic materials! Cooperate by standardizing on Silica Gel—it's patriotic and profitable.

THE DAVISON CHEMICAL CORPORATION

Silica Gel Department
BALTIMORE, MARYLAND

KERO TEST

Valves and Fittings

The Standard of the Industry

Kerotest Manufacturing Co.
Pittsburgh, Pa.

PLENTIFUL, QUICKLY AVAILABLE, IN CONTAINERS SUITED TO YOUR PARTICULAR NEEDS

SULPHUR DIOXIDE BY ANSUL

Twenty-five pounds, or a carload—Ansul Sulphur Dioxide is plentiful, readily available throughout the United States, and economical. Ansul Jobbers everywhere carry adequate stocks—in a variety of containers suited to your individual needs.

But more than that, Sulphur Dioxide is still the best refrigerant yet developed for household machines, and for many applications in commercial machines.

ANSUL CHEMICAL COMPANY, MARINETTE, WIS.
Manufacturers of Sulphur Dioxide for 26 Years
METHYL CHLORIDE • ICE-X
AGENTS FOR KINETIC • FREON-12

HELP SAVE STEEL
Prompt return to Marinette of empty Ansul cylinders and drums will insure speedier delivery from us to you, and will save steel for vital defense needs.

LET US GIVE YOU THE NAME OF THE ANSUL JOBBER NEAR YOU

Anaconda Copper Refrigeration Tubes

New cup seal keeps them clean and dry



THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices: Watertown, Conn.

Text of OPM Order Limiting Production of Household Refrigerators

Output of Boxes Is Slashed 43.2% For Last 5 Months; Bigger Cut Predicted

Following are the complete texts of the publicity release and Limitation Order L-5 restricting production of household mechanical refrigerators, as issued Sept. 30 by Donald M. Nelson, Director of Priorities of the Office of Production Management. Essence of the curtailment order was reported by the NEWS last week, but the complete reports supply many additional details of importance to persons in the household refrigeration field.

WASHINGTON, D. C., Sept. 30.—A limitation order for the domestic mechanical refrigerator industry reducing production for the five months from Aug. 1 through Dec. 31, 1941 by 43.2% below average monthly factory sales in the 12 months ended June 30, 1941, was issued today by Donald M. Nelson, Director of Priorities.

DCS RECOMMENDATIONS

The order is based on recommendations by the Division of Civilian Supply looking to an output of 2,007,000 units in the 12 months beginning Aug. 1, 1941 as against 3,670,000 units produced in the 12 months ended June 30, 1941.

This anticipated 12-month program represents a decline of 45.5% from output in the 12 months ended June 30, 1941, and 20% from output in the 12 months ended June 30, 1940. However, it is higher than output in most other years since 1929. The estimated demand for refrigerators to replace those wearing out during the coming year is 700,000 units. Anticipated production will cover this by a wide margin and still leave a substantial number of refrigerators for new installations.

The program is designed to reduce consumption of steel in the manufacture of refrigerators by 175,000 tons a year, to effect substantial savings in consumption of other scarce materials, to help relieve the pressure on material supplies from consumers' durable goods industries, and to release facilities for defense work.

METAL CONSUMPTION

The domestic mechanical refrigerator industry consumes a substantial amount of aluminum, brass, chromium, copper, nickel, iron, tin, zinc, mica, neoprene, and rubber, in addition to steel.

The industry is made up of 30 plants located in 19 communities and employing about 45,000 workers. A small amount of defense work is already being done in industry plants.

The Labor and Contracts Distribution divisions of the Office of Production Management are now working on plans to relieve labor dislocation which may result from the reduced production. These plans include: (1) expansion of training programs to fit displaced labor for defense work; (2) shifting of workers already having the necessary skills to defense work; and (3) the securing of additional defense contracts in areas where refrigerator plant operations are reduced.

Similar limitation programs relating to other consumers' durable goods industries are being prepared by the Division of Civilian Supply. Extent of the curtailment in each industry will be determined by considerations of possible materials savings, burdens on consumers, and extent to which labor and industrial equipment will be made idle.

The refrigerator program has been worked out in detail for only the five month period from August through December, 1941, since it is problematical what conditions will be in the succeeding seven months.

AVERAGE MONTHLY QUOTAS

Under the program average monthly quotas for the industry will total 175,519 units for the five months August to December, 1941, inclusive. This will be a decline of 43.2% under average monthly factory sales of 309,234 units in the 12 months ended June 30, 1941. Cuts in the seven months from January through July, 1942, below average factory sales last year, will probably be greater than the 43.2% cut for the current five months.

The program is designed to level out monthly production to a large extent over the 12 months ending July 31, 1942. Operations of the industry during the 12 months ended June 30, 1941, showed a strong upward trend, with monthly output toward the end of that period running more than double output at the beginning.

WHAT CUT MEANS

Output in the five months from August through December, 1941, therefore, will be only about 2% under average output in like months of 1940. It will, however, be considerably under output in recent months. Likewise, it is anticipated that output in the seven months ending July 31, 1942, will be considerably under output in the like months of 1941.

Size of companies in the industry varies widely. It is believed that the larger companies are better able to withstand a reduction in output than are the smaller companies. Therefore, the extent of the reductions in output is graduated as between companies, with three different classifications being established according to size. These classifications and the percentage reductions to be applied to each group in the current five months are as follows:

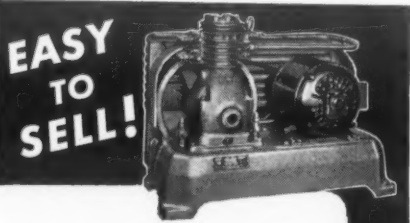
Monthly average sales 12 months ended June 30, 1941	Average reduction in current 5 months below average monthly sales in 12 months ended June 30, 1941
Class A ... 16,000 units up	45%
Class B ... 5,000 to 16,000 units	37%
Class C ... 0 to 5,000 units	29%

In order to avoid possible inequities, provision is also made that a Class A manufacturer may produce not more than 50,400 units during the five-month period, or adopt the 45% curtailment, whichever will give him the greater output. Likewise Class B manufacturers may choose between the 37% reduction or a ceiling of 17,750 units during the period, whichever is greater.

It is expected that, beginning in January, the cuts under average monthly sales in the 12 months ended June 30, 1941 will be as follows: Class A, 50%; Class B, 40%; and Class C, 30%.

HELD MEETING FIRST

In preparing the program, the Civilian Supply Division first held an industry-wide meeting, to provide manufacturers an opportunity to discuss their problems and to indicate to them that material shortages would force a reduction in output. A tentative curtailment program was then drafted and discussed with a panel of representative refrigerator manufacturers. This tentative program was subsequently modified in light of the criticisms received. Thereafter, the program was discussed with representatives of a number of labor unions concerned. Both management and labor representatives were told that the program would merely establish production maximums. Furthermore, they were told there is no guarantee that there will be sufficient materials available to reach these maximums.



More than 20 years of high reputation...in every kind of refrigeration service...has established the name "Lipman" as a BUY word that breaks down sales resistance. Make this reputation your sales asset...for greater profit and better customer satisfaction.



GENERAL REFRIGERATION DIVISION
Yates-American Machine Co.
Dept. AC-1 Beloit, Wisconsin

The text of the limitation order is attached.

Title 32—National Defense
Chapter IX—Office of Production Management
Subchapter B—Priorities Division
Part 989—Mechanical Refrigerators
Limitation Order L-5

To Restrict the Production of Domestic Mechanical Refrigerators Pursuant to power vested in the Director of Priorities by Regulation No. 3 Amended, dated Sept. 2, 1941, and approved by the President of the United States Sept. 12, 1941,

IT IS HEREBY ORDERED THAT 989.1 General Limitation Order

(a) Definitions. For the purposes of this order:

(1) "Domestic Mechanical Refrigerator" means any refrigerator for household use which operates either by compression or by absorption.

(2) "Factory Sales" means sales of Domestic Mechanical Refrigerators from factory or branches to distributors, dealers, or consumers.

(3) "Class 'A' Manufacturers" means those manufacturers of Domestic Mechanical Refrigerators the monthly average of whose Factory Sales for the 12 months ending June 30, 1941, including both domestic sales and exports, was 16,000 such units or more.

(4) "Class 'B' Manufacturers" means those manufacturers of Domestic Mechanical Refrigerators the monthly average of whose Factory Sales for the 12 months ending June 30, 1941, including both domestic sales and exports, was greater than 5,000 such units but less than 16,000 such units.

(5) "Class 'C' Manufacturers" means those manufacturers of Domestic Mechanical Refrigerators the monthly average of whose Factory Sales for the 12 months ending June 30, 1941, including both domestic sales and exports, was 5,000 such units or less.

(b) General Restriction. During the five months period from Aug. 1 to Dec. 31, 1941, inclusive,

(1) No class "A" Manufacturers shall produce more Domestic Mechanical Refrigerators than the greater of the following two limits:

(i) 50,400 of such Refrigerators, or

(ii) five times 55% of the monthly average of his Factory Sales of such Refrigerators for the 12 months ending June 30, 1941.

(2) No Class "B" Manufacturer shall produce more Domestic Mechanical Refrigerators than the greater of the following two limits:

(i) 17,750 such Refrigerators, or

(ii) five times 63% of the monthly average of his Factory Sales of such Refrigerators for the 12 months ending June 30, 1941.

(3) No Class "C" Manufacturer shall produce more Domestic Mechanical Refrigerators than five times 71% of the monthly average of his Factory Sales of such Refrigerators

for 12 months ending June 30, 1941.

(c) Avoidance of Excessive Inventories. Manufacturers of Domestic Mechanical Refrigerators shall not accumulate inventories of raw materials, semi-processed materials, finished parts, or assembled Refrigerators in quantities in excess of minimum practicable working inventories.

(d) Records. All persons affected by this Order shall keep and preserve for not less than two years accurate and complete records concerning inventories, production, and sales.

(e) Audit and Inspection. All records required to be kept by this Order shall, upon request, be submitted to audit and inspection by duly authorized representatives of the Office of Production Management.

(f) Reports. Each Manufacturer to whom this Order applies shall on the 15th day of October, 1941, and on the 15th day of every month thereafter, file with the Electrical Appliance and Consumers' Durable Goods Branch of the Division of Civilian Supply of the Office of Production Management, a report of inventories of Domestic Mechanical Refrigerators and materials entering into the production of the same, in such form as shall be prescribed by the Office of Production Management. Such report shall also include a statement of the number of mechanical refrigerators produced by such manufacturer during the preceding two months, by models. Each manufacturer to whom this Order applies shall also execute and file with the Office of Production Management such other reports and questionnaires

as said Office shall from time to time request.

(g) Provision for Companies under Common Ownership. For the purposes of this Order, a manufacturer's classification into Class "A," "B," or "C" shall depend upon the monthly average of Factory Sales by that manufacturer, including in the total of such sales all Factory Sales made by subsidiaries, affiliates, or by other companies or enterprises under common ownership or control.

(h) Violations or False Statements. Any person who violates this order, or who wilfully falsifies any records which he is required to keep by the terms of this order, or by the Director of Priorities, or otherwise wilfully furnishes false information to the Director of Priorities or to the Office of Production Management, may be deprived of priorities assistance or may be prohibited by the Director of Priorities from obtaining any further deliveries of materials subject to allocation. The Director of Priorities may also take any other action deemed appropriate, including the making of recommendation for prosecution under section 35A of the Criminal Code (18 U.S.C. 80).

(i) Effective Date. This Order shall take effect upon the date of the issuance thereof and shall continue in effect until revoked by the Director of Priorities subject to such amendments or supplements thereto as may be issued from time to time by the Director of Priorities.

Issued this 30th day of Sept., 1941.

DONALD M. NELSON,
Director of Priorities



The infamous Captain Teach, better known as Blackbeard, Pirate of the high seas, was captured by an expedition sent by the Governor of Virginia.

VIRGINIA—a name that has earned respect

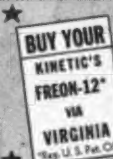
In industry today, just as in sea-borne commerce, progress is preserved only by cooperation and regard for the rights of all.

An earnest effort to sustain an orderly and equitable distribution when many forces tend to dislocate normal production and supply—to build confidence on which business relations can be strengthened—this is the Virginia pledge to its customers.



Every Clorage Fan Wheel is BOTH statically and dynamically balanced—every precaution taken to insure freedom from vibration and QUIET operation. That's one BIG reason why so many unit conditioner manufacturers prefer Clorage Wheels and Complete Assemblies. And, yes, we build a complete range of sizes! May we have your next inquiry?

CLORAGE FAN COMPANY
KALAMAZOO, MICHIGAN
Sales Offices in All Principal Cities



EXTRA DRY ESOTOD • Methylene Chloride • V-METH-L
VIRGINIA SMELTING CO.
Located at tidewater
WEST NORFOLK, VIRGINIA



Interpretations of 1940 Taxes Believed Applicable Until New Rulings Are Released By Gov't

(Concluded from Page 1, Column 2)
taxable components (compressors, evaporators, etc.) for incorporation into the complete assembly, upon which purchases he is entitled to a credit, if not bought tax free (included in supplier's price or collected as an extra).

"Sec. 316.72 Application of Tax"

"A manufacturer of refrigerator components may sell such articles tax free to a manufacturer of household type or other refrigerators or refrigerating or cooling apparatus. If a manufacturer of household type refrigerators buys refrigerator components upon which tax has been paid he may take credit against the tax due on his sale of completed household refrigerators to the extent of any tax paid on refrigerator components forming a part of such refrigerators."

"Section 316.94 Credits and Refunds"

"A credit against the tax due on the sale of any article covered by these regulations or a refund may be allowed or made to a manufacturer in the amount of any tax which has been paid by any person with respect to the sale of any article (other than a tire or inner tube) purchased and used by such manufacturer as material in the manufacture or production of, or as a component part of, any such article with respect to which tax has been paid, or which has been sold free of tax in accordance with the provisions of section 316.21 or 316.22.

"A claim for refund must be supported by evidence showing (1) the name and address of the person who paid to the United States the tax of which refund is claimed, (2) the date

of payment, (3) the amount of such tax, and (4) that the article was so used. A credit taken on a return must be supported by evidence of the same character. If it is impossible to furnish such evidence at the time when the credit is taken, a statement to that effect must be submitted with the return in which the credit is taken. The evidence supporting such credit must be filed with the collector within 30 days after the date on which the return is filed. If the required evidence is not so filed within that period, the amount of the credit will be disallowed and assessment of the tax resulting from the disallowance will be made on the current assessment list.

"In the case of a readjustment of price to the manufacturer's vendee by reason of the return or repossession of an article or a covering or container, or by a bona fide discount, rebate, or allowance, the manufacturer who paid the tax based upon the original price may file a claim for refund or take credit against the tax due upon any subsequent monthly return in the amount of that part of the tax proportionate to the part of the sale price which is refunded or credited to the purchaser. In no case shall such a refund or credit be allowed to the taxpayer in connection with an article or a covering or container sold prior to June 21, 1932. The refund or credit of the tax shall be allowed only if a sworn statement is furnished showing that the readjustment of price has actually been made."

"Sec. 316.20 Tax-free Sales and Registration"

"No taxable article may be sold tax free under paragraph (1) or (2) of section 3442, unless the vendor and the vendee have each registered with the collector of internal revenue for the district in which is located his principal place of business (or if he has no principal place of business in the United States, with the collector of internal revenue at Baltimore, Md.), and unless the exemption certificate hereinafter prescribed shows the registration number of the vendee.

"Every person qualifying as a manufacturer of articles taxable under Chapter 29, Subchapter A, of the Internal Revenue Code (except manufacturers of tires or inner tubes), or as a vendee with an established place of business reselling

direct to manufacturers of taxable articles, will be granted a registration certificate on Form 637, upon application to the collector for his district.

"A person making application to a collector of internal revenue for a registration number as a vendee for resale must attach to such application a statement showing in detail the nature of his business, the articles handled by him and the type of business conducted by the manufacturers to whom the articles purchased tax free will be resold.

"Collectors of internal revenue shall issue certificates of registry and assign registration numbers to all manufacturers located in their districts (except manufacturers of tires or inner tubes) whose applications are approved."

"Sec. 316.21 Exemption of Supplier"

"Articles sold to manufacturers—To establish the right to exemption with respect to an article (other than a tire or inner tube) sold for use by the purchaser as material in the manufacture or production of, or as a component part of, a taxable article, the manufacturer must obtain from his vendee, prior to or at the time of sale, and retain in his possession, a certificate as outlined in this section, showing that the vendee is a manufacturer of taxable articles and that the article purchased is to be used by him as material in the manufacture or production of another taxable article or as a component part of such an article.

"A manufacturer who purchases an article under an exemption certificate for use in the manufacture or production of a taxable article shall be considered the manufacturer of the article so purchased, and is liable for tax on his use or resale of the article unless the exempt character of the use or resale is established.

"It is to be noted that sales of tires and inner tubes may not be made tax free for use as material in the manufacture of, or as a component part of, any article."

According to the above regulations, the maker of component parts may choose to sell them tax free, in which case he must obtain the exemption certificate from the purchaser (manufacturer of the refrigerator). If, however, he chooses to pay the tax himself, the refrigerator manufacturer can claim a credit for the amount of tax he has paid his supplier.

The manufacturer who claims credit on purchases of components bought tax free must be very careful to see that such components are incorporated in or sold in conjunction with the complete taxable refrigerator, or he is liable to the tax if sold separately by him.

Following are the text of previous years' regulations which indicate clearly that the manufacturer's excise tax applies on the wholesale basis, with an explanation of what manufacturers who sell direct must do:

"Sec. 316.8 Basis of Tax"

"The tax is imposed on the sale by the manufacturer of any of the articles enumerated in these regulations. The provisions of law quoted above embody the rules for determining the sale price, which is the basis of the tax, except in cases covered by section 3441(b) (see section 316.15 of these regulations). In general, this should be the manufacturer's actual price at the point of distribution or sale. In determining the sale price, for tax purposes, there shall be included any charge incident to placing the article in condition packed ready for shipment. There shall be excluded (1) the amount of the tax, whether or not billed as a separate item, and (2) (subject to the provisions of section 316.12) transportation, delivery, insurance, installation, or other charges (not required by the preceding sentence to be included).

"Sec. 316.9 Conditional or Instalment Sales, etc."

"Special provision is made in the law for computing taxes due in the case of leases of articles and instalment and so-called conditional sales. The term 'lease' means a continuous right to the possession or use of a particular article for a period of time. It does not include the use of an article merely as occasion demands, but the contract must give the lessee the right to possess or use the article, without interruption, for a period of time.

"Where articles are leased by the manufacturer, or sold under an instalment-payment contract, or under

a conditional-sale contract with payments to be made in instalments, a proportionate part of the total tax shall be paid upon each payment made with respect to the article. Such taxes are to be returned and paid to the collector during the month following that in which such payment is made."

"Sec. 316.11 Exclusion of Tax"

"The tax imposed on the sale of an article is not part of the taxable price of the article. Therefore, if a manufacturer computes the tax upon his sale price exclusive of the tax, and charges the tax on such sale price as a separate item, no tax will be due on the tax so charged. Where no separate charge is made as tax, it will be presumed to be included in the price charged for the article, and a proper percentage of such price allocated to the tax.

If an article subject to tax at the rate of 5% is sold for \$100 and an additional item of \$5 is billed as tax, it is clear that \$100 is the taxable selling price and \$5 the amount of tax due thereon. However, if the article is sold for \$100 with no separate billing or indication of the amount of the tax, it will be presumed that the tax is included in the \$100, and computation will be necessary to determine what portion of the total amount represents the sale price of the article and what portion the tax.

"If the tax on the article is 5% of the sale price it is clear that the \$100 includes a basic sale price (100%) and the tax thereon (5%). Consequently, in order to determine the amount of the tax, the \$100 must be divided by 1.05, resulting in a quotient of \$95.24, which is the sale price of the article. If the \$95.24 is either subtracted from \$100 or multiplied by .05 (the rate of the tax), the correct tax will be ascertained—\$4.76. The same method of computation may be applied where a different tax rate is involved, and the tax is included in the sale price, the amount charged the customer being divided by 1.00 plus the tax rate, thus ascertaining the sale price of the article and from that the tax thereon.

"The above method of computing the tax is applicable only where the basis for the tax is the actual sale price. If the basis for the tax is the fair market price as determined under the provisions of section 3441(b), the tax is computed at 2%, 3%, 5%, or 10%, as the case may be, of such fair market price without excluding any of the items enumerated in section 3441(a)."

"Sec. 316.12 Transportation Charges, etc."

"Charges for transportation, delivery, insurance, installation, and other charges actually incurred in connection with the delivery of an article to be purchased pursuant to a bona fide sale, are to be excluded in computing the tax.

"No other additional charge may be excluded in computing the tax unless it can be shown by adequate records to the satisfaction of the Commissioner that such charge properly is not to be included as a manufacturing or selling expense, or is in no way incidental to placing the article in condition packed ready for shipment."

"Sec. 316.13 Discounts and Adjustments"

"Readjustments in sale price (such as allowable discounts, rebates, bonuses, etc.) can not be anticipated. The tax must be based upon the original price unless the readjustments have actually been made prior to the close of the month in which the tax upon the sale is returned. However, if the price upon which the tax was computed is subsequently readjusted, a proper credit may be taken against the tax due on a subsequent return, or an appropriate claim for refund may be filed.

"Where articles are sold over a period of time under an agreement for a quantity rebate, or an agreement for a so-called wholesale bonus, and an adjustment in price is actually allowed in accordance with such agreement, the tax may be adjusted in the return for the month in which the price is finally determined, or a claim for refund may be filed.

"Where articles are sold under an agreement which provides for a rebate in the case of a price reduction applicable to articles remaining unsold in the hands of a dealer, and a rebate is made in accordance with such agreement, a corresponding adjustment of tax paid may be effected through a credit or claim for refund.

"Commissions to agents, or allowances, payments, or adjustments made to persons other than the manufacturer's vendee are not deductible from the sale price under any conditions for purposes of computing the tax."

"Sec. 3443 Repossessions"

"(a) A credit against tax under this chapter, or a refund, may be allowed or made—

"(2) to any person who has paid tax under this chapter with respect to an article, when the price on which the tax was based is readjusted by reason of return or repossession of the article or a covering or container, or by a bona fide discount, rebate, or allowance; in the amount of that part of the tax proportionate to the part of the price which is refunded or credited."

"Sec. 316.15 Fair Market Price"

"The law provides a special basis of tax computation where sales are at less than the fair market price and not at arm's length. The fair market price is the price for which articles are sold by manufacturers at the place of distribution or sale in the ordinary course of trade and in the absence of special arrangements. A sale is not at arm's length when made pursuant to special arrangements between a manufacturer and a purchaser (as in the case of intercompany transactions). When a sale is not at arm's length and the price is less than the fair market price (as in the case of intercompany transactions at cost or at a fictitious price), the tax is to be computed upon a fair market price to be computed by the Commissioner. No deduction from the fair market price as determined by the Commissioner is permissible.

"Where a manufacturer sells articles at retail, the tax on his retail sales ordinarily will be computed upon a price for which similar articles are sold by him at wholesale. However, in such cases it must be shown that the manufacturer has an established bona fide practice of selling the same articles in substantial quantities at wholesale. If he has no such sales at wholesale, a fair market price will be determined by the Commissioner.

"If a manufacturer sells regularly at wholesale at several varying but bona fide rates of discount, ordinarily his average selling price for the smallest wholesale lots will be the basis of tax with respect to retail sales. All sales at wholesale are subject to tax on the basis of the actual sale price of each article so sold.

"If a manufacturer delivers articles to a dealer on consignment, retaining ownership in them until disposed of by the dealer, the manufacturer must pay a tax on the basis of the fair market price, which will ordinarily be the net price received from the dealer."

COMMERCIAL REFRIGERATORS
World's most complete line of commercial cabinets—13 to 84 cu. ft. capacity.
MIDWEST
MFG. COMPANY • GALESBURG, ILL.

Established **CURTIS** 1854
REFRIGERATION
AIR CONDITIONING
AND COMMERCIAL
Curtis Refrigerating Machine Division
of Curtis Manufacturing Company
1912 Kienlen Ave. St. Louis, Mo.

First Cost is the **LAST COST!**
AIR-MAZE
Permanent Air-Filter Panels
AIR-MAZE CORP. CLEVELAND, OHIO


Use **CHICAGO SEALS**
for seal replacements
A complete line in all sizes
CHICAGO SEAL CO.
80 North Wacker Dr., Chicago

GALE
COMPRESSORS
Single and twin cylinder units. Engineered and manufactured to highest standards. Write **GALE PRODUCTS**
1635 Monmouth, Galesburg, Ill.

END TROUBLE CALLS!
Investigate the exclusive advantages of White-Rodgers Hydraulic Action Controls. Your copy of new catalog will be sent by return mail. Write today!
White-Rodgers Electric Co.
1211 Cass Ave., St. Louis

MOST COMPLETE LINE... OVER 100 MODELS
Specify and Buy Fedders UNIT COOLERS
FEDDERS MFG. CO. BUFFALO, N. Y.

Where's Gilmer?
Keep your useful Gilmer catalog—"America's Belt Bible"—handy at all times.



It tells right off just what replacement belt to prescribe for 7800 different models of electric refrigerators alone—not to mention oil burners, air conditioners, water and beer pumps, stokers, compressors, and many other belt-driven appliances.

Another time saver is the Gilmer Handimeter, a slick gadget that gives the length of any belt in three seconds. No guessing, no figuring.

Ask your distributor about the Gilmer Eye-ful Tower. It brings you in a profit of \$16.57 and stocks you up with the sizes of V-belts most people need.

L. H. GILMER COMPANY, Tacony, Phila., Pa.

"The right V-belt for every purpose"



You'll make more friends selling Gilmer belts. Each part of a Gilmer V-belt, top tension rubber, pulling cords locked in rubber, heavy jackets and heat-resisting bottom rubber, is designed and made of just the right material for its particular job. Sell your customers dependable Gilmer belts.

SUPREME UNIT COOLER



Adapted to refrigeration applications where perfect air distribution at low velocity is required.




BUSH MFG. CO.
HARTFORD, CONN.
610 N. OAKLEY BLVD.
CHICAGO

Bush
Mfg. Co.

COMMERCIAL COOLING UNITS

MILLS MIGHTY REFRIGERATION



Mills Condensing Units
By Mills Novelty Company
4100 Fullerton Ave., Chicago, Ill.

★★★★★★★★

U. S. GOVERNMENT Specification

Filtrine

Cafeteria Coolers
Filtrine Mfg. Co., Brooklyn

CLASSIFIED ADVERTISING

RATES for "Positions Wanted," 5¢ per word; minimum charge, \$2.50. Three consecutive insertions, 12¢ per word; minimum charge \$6.25.

RATES for all other classifications, 10¢ per word, minimum charge, \$5.00 per insertion. Three consecutive insertions, 2¢ per word, minimum charge, \$12.50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count.

PAYMENT in advance is required for advertising in this column.

POSITIONS WANTED

A PRACTICAL and well trained refrigeration service man of 18 years' experience, with general knowledge of heating, electric range, and home laundry equipment desires position in Michigan, Ohio, or Indiana. Capable of assuming complete charge of appliance service department. Can furnish best of references. Box 1355, Air Conditioning & Refrigeration News.

FEDERS Refrigeration Coil Representative in New England desires one other companion line. Credentials will be furnished upon request. Box 1367, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

DIRECT FACTORY Connection: Sell Refrigerator Display Cases, Walk-In Coolers, Reach-In Refrigerators, Refrigerating Units to Meat Markets, Grocers, Taverns, etc. Financing arrangements to help sell. Write for full information or see EHRICH REFRIGERATOR MFG. CO., St. Joseph, Mo., Dept. 4.

EQUIPMENT FOR SALE

BRAND NEW Controls in their original cartons. Below market value. Also several hundred brand new expansion valves. Also motors, condensers, and unit bases. Priced for quick action. Write for full details. Box 1368, Air Conditioning & Refrigeration News.

Servicing Ice Cream Cabinets and Other Low Temperature Equipment

By Arch Black and Dean C. Seltz

Editor's Note: This is the nineteenth instalment of a new section on ice cream cabinet servicing in the series of articles which covers servicing of all types of low temperature refrigeration equipment for use in retail business.

Servicing High Side Float Systems (Cont.)

COMPLAINT No. 5—The machine is noisy.

All of the causes of this complaint will be listed below in order to maintain a complete file on this subject. However, the remedies of causes No. 1 to 12 inclusive will be found under the corresponding headings previously discussed in the low side float system.

- Cause No. 1—Shipping blocks not removed.
- Cause No. 2—Fan striking belt or condenser.
- Cause No. 3—Squeaky belt.
- Cause No. 4—Tubing vibration.
- Cause No. 5—Loose pulleys.
- Cause No. 6—Noisy seal.
- Cause No. 7—Noisy discharge valve.
- Cause No. 8—Compressor pumping oil.

Cause No. 9—Low oil level in compressor.

Cause No. 10—Loose connecting rod, wrist pins, or crankshaft.

Cause No. 11—Worn motor bearings.

Cause No. 12—Excessive motor end play.

Cause No. 13—Weighted valve (liquid temperature valve) chatters.

There is only one simple remedy for this difficulty and it is to remove the valve and replace it with a new one.

COMPLAINT No. 6—Electric bills are too high.

Cause No. 1—Any cause listed under Complaint No. 3, namely, "Machine Runs Too Much of the Time" is a possible cause of a high electric bill.

The remaining causes No. 2 to No. 4 inclusive are exactly the same as the corresponding causes and remedies outlined previously under the low side float system.

Cause No. 2—Inefficient motor.

Cause No. 3—Cabinet used for making ice or hardening ice cream.

Cause No. 4—Cabinet in exceptionally warm location.

COMPLAINT No. 7—There is an objectionable odor around the ice cream cabinet.

The causes and remedies of this complaint are exactly the same as previously outlined under the low side float system.

- Cause No. 1—Refrigerant leak.
- Cause No. 2—Alcohol odor.
- Cause No. 3—Motor bearings hot.
- Cause No. 4—Motor—electrical trouble.

COMPLAINT No. 8—Suction line frosts.

Cause No. 1—Overcharge of refrigerant.

An overcharge of refrigerant will permit liquid refrigerant to "slop over" into the suction line from the evaporator and accumulator. Some high side float ice cream cabinets are equipped with heat exchangers. On these models a normal refrigerant charge may slightly frost the suction line between the evaporator and the heat exchanger.

If these systems are overcharged the frost will be on the suction line between the heat exchanger and the condensing unit. In this case the system will function inefficiently and may result in oil pumping.

The remedy is to purge the unit until the operating conditions are normal. In purging always remember that the refrigerant charge is rather critical and, therefore, particular care must be used so that the system will not become undercharged.

1942 Will Require Work To Sell Appliances

(Concluded from Page 1, Column 2) amount of anticipatory buying this year," the "Times" reports.

"Many people who in 1941 paid a comparatively small income tax or none at all will have to pay next year an amount equal to the price of an electric refrigerator or an electric range," he pointed out. "Many will be completely unprepared for this development, and spring business will be materially affected as a result."

Household Washers Out Of Excise Tax Bill

(Concluded from Page 1, Column 5) they were included in the Senate bill, although not listed in the original measure as passed by the House.

Eleventh-hour revision of the tax bill to exclude household washers is considered a signal victory for home laundry equipment makers, who have waged a constant battle against such an impost on their products ever since the possibility arose early this year.

Representatives of American Washer & Ironer Manufacturers Association have been in Washington almost constantly during the time the bill was under consideration by Congress.

SAFETY—WITHOUT BULKINESS!

Your men have greater working freedom with this compact

1600 FUMEGARD

The Pulmosan No. 1600 Fumegard Face Mask is designed on modern gas mask principles. Bulky chest hose, straps and canister are eliminated, affording full protection against refrigeration gases and fumes, with much less interference with workers' activity. Here are a few features: Sturdy rubber face piece; large shatterproof, non-fogging lenses; U. S. Army type flutter exhalation valve; 5-point suspension; airtight fit; efficient absorbents. Before you buy another mask, examine this economical No. 1600 Fumegard.

Pulmosan Safety Equip. Corp.,
Dept. AC, 176 Johnson St., Brooklyn, N. Y.



WRITE TODAY
for literature giving full details and new low price.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933, OF AIR CONDITIONING & REFRIGERATION NEWS published weekly at Detroit, Mich., for Oct. 1, 1941.

State of Michigan } ss.
County of Wayne }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared John R. Adams, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the Air Conditioning & Refrigeration News and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher: George F. Taubeneck, Grosse Pointe, Mich.

Editor: George F. Taubeneck.

Managing Editor: Phil B. Redeker, Detroit, Mich.

Business Manager: John R. Adams, Detroit, Mich.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

Business News Publishing Co., 5229 Cass Ave., Detroit, Mich.

Stockholders:

Margaret B. Cockrell, Detroit, Mich.

Helen C. Henderson, Detroit, Mich.

George F. Taubeneck, Grosse Pointe, Mich.

Phil B. Redeker, Detroit, Mich.

John R. Adams, Detroit, Mich.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

(s) John R. Adams
Business Manager

Sworn to and subscribed before me this 19th day of September, 1941.

(Seal) (s) M. Helen Cockrell
(My commission expires Dec. 25, 1943.)

FROM
1/4 to 25 TONS
OF REFRIGERATION

Brunner Refrigerating and Air Conditioning equipment comprises air and water cooled condensing units for practically all types of commercial applications up to and including 25 tons of refrigeration. Catalog promptly on request. Brunner Manufacturing Co., Utica, N. Y., U. S. A.

BRUNNER

FOR YEARS THE SYMBOL OF QUALITY

Anaconda Copper Refrigeration Tubes

Dependable!



THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices: Waterbury, Conn.

Dayton V-BELTS

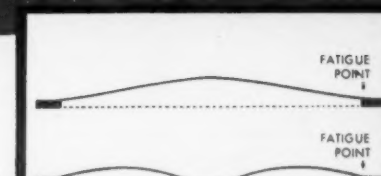
Silent, vibrationless, dependable, long-lasting. Powerful grip prevents slippage. A nearby distributor carries a complete stock for appliances and machines.

THE DAYTON RUBBER MFG. CO., DAYTON, OHIO
World's Largest Manufacturer of V-Belts

STREAMLINE PRODUCTS

Longer Diaphragm Life

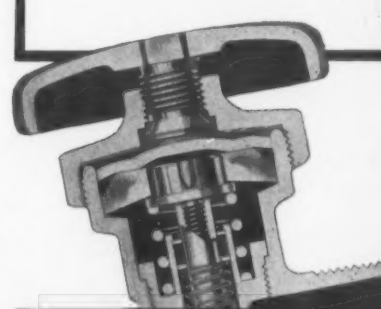
- * SMALL MOVEMENT OF DIAPHRAGM
- * MUCH LESS METAL FATIGUE
- * DIAPHRAGM AREA INCREASED 20%
- * NEVER DEFLECTED BEYOND NORMAL CENTER



● In the new Triple-Sealed Line Valve the life of the diaphragms is greatly prolonged, thus immeasurably adding to the life of the valve itself in service.

In conventional diaphragm operation the diaphragm operates through and beyond its center point, producing what is generally known as "oil can" action. This continual snapping when opening and closing the valve fatigues the metal at the edges where it is secured to the body, and in a comparatively short time results in service failure of the valve. The diaphragm of the new valve has approximately 20% increased surface area over other types of diaphragms in similar sized valves, but most important of all IT IS NEVER DEFLECTED PAST ITS NORMAL CENTER WHEN OPENING OR CLOSING THE VALVE.

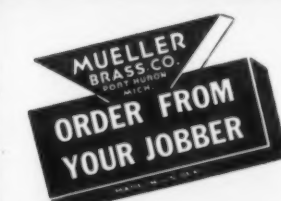
A single turn only is all that is necessary to open or close.



MUELLER BRASS CO.

PORT HURON, MICH.

MUELLER BRASS CO.



Your Jobber gives you prompt delivery. Accurate service over the phone or in the shop on whatever you need...and at the time you need it.

PORT HURON, MICH.

3 CATALOGS IN 1
HERMETIC UNITS - COMPRESSORS - PARTS
FRIGIDAIRE - KELVINATOR - NORGE - G-E
Complete Line Refrigeration Parts - Tools - Supplies
WRITE FOR YOUR COPY ON YOUR LETTERHEAD

SERVICE PARTS CO.
MELROSE PARK, ILLINOIS

BUNDY TUBING
ENGINEERED TO YOUR EXPECTATIONS

BUNDY TUBING CO., DETROIT

PENN Leads in
Automatic
Switches and Controls
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

Over 225,000
MASTERBUILT Lockers In Use
Investigate the
Saf-T-Loc Individual Locker
the popular locker sold only thru
refrigeration and insulation distribu-
tors. Write for particulars.
Master Refrigerated Locker Systems, Inc.
121 Main St. Sioux City, Iowa

To Make a tight
connection that will
STAY tight

**USE IMPERIAL TRIPLE
SEAL FITTINGS**

THE flare extrudes into
groove making a leak
proof joint even when seat
has been badly nicked or
marred.

Ask your jobber about
Triple Seal Fittings
IMPERIAL BRASS MFG. CO.
365 S. Racine Ave., Chicago

IMPERIAL
VALVES • FITTINGS • TOOLS
CHARGING LINES • FLOATS
STRAINERS • DEHYDRATORS

Equip Your Way To Profits With LARKIN

REFRIGERATION PRODUCTS

The nation-wide acceptance of Larkin products is mute testimony of their efficiency, adaptability and economy of operation. Specify Larkin Patented Cross Fin Coils, Bare Tube Coils, Humi-Temp Forced Convection Units, and other Larkin Equipment. See your jobber or write direct for catalog and prices.

LARKIN COILS, INC.
519 Memorial Dr., S.E., Atlanta, Ga.

Originators of The Cross Fin Coil

Snap Action Control

For controlling differing temperatures on multiple coils operated from one compressor unit, Aminco Snap Action Valve No. 1484 is definitely indicated. Used with any refrigerant except ammonia. Flooded or dry gas types or in combination.

Any variety of units such as ice cream cabinets, soda fountains, back bars, water coolers, candy counters, beer coils, storage rooms, etc., may be connected to a single compressor unit when Aminco Multiple-Temperature (Snap-Action) Valve is used.

AMERICAN INJECTOR COMPANY
1481 FOURTEENTH AVENUE, DETROIT, MICHIGAN
Pacific Coast: Van D. Clothier 1015 F. 10th, Los Angeles Export: Borg-Warner International Corporation 310 S. Michigan Ave., Chicago, Ill.

Subscription Order Blank

Air Conditioning & Refrigeration News 5229 Cass Ave., Detroit, Mich.
Gentlemen: Please send me the next 52 issues (1 year) of Air Conditioning & Refrigeration News.
☐ Enclosed is \$4.00. ☐ I will send \$4.00 on receipt of bill.

Name

Company

Street Address

City State

My business is

Note: Subscription price is \$4.00 only in U.S.A., Canada, U.S. Possessions, and countries in the Pan-American Postal Union. Elsewhere—\$6.00 per year. 10-8-41

A Safe Food Supply —for a SAFER AMERICA!

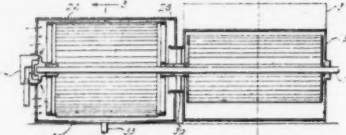
In food warehouses and markets all over the country, Ranco Commercial Controls are on duty night and day, vigilantly safeguarding one of America's most important defense assets. Rely on Ranco - - for dependable protection of the Nation's food supply.

RANCO COMMERCIAL CONTROLS

PATENTS

Weeks of Sept. 2 & 9

2,254,213. AIR CONDITIONING APPARATUS. Edward D. Feldman, Glendale, Calif., assignor of one-third to Alan C. Stoneman, Los Angeles, Calif., and one-third to Harry W. Greenberg, Glendale, Calif. Application Jan. 24, 1939, Serial No. 252,584. 1 Claim. (Cl. 261-90.)



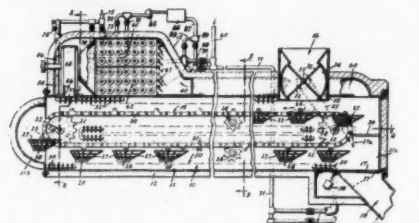
An air-conditioning apparatus which includes: an air conduit; a louvred cylinder rotatably mounted within said conduit and forming an annular passage therewith; means within said cylinder for producing a high velocity spray of water therein at a substantial angle to the longitudinal axis thereof; means for inducing a flow of air through said cylinder; means for rotating said cylinder whereby said air is given a helical motion.

2,254,225. REFRIGERATING APPARATUS. Herman W. Kleist, Chicago, Ill.,

assignor to Dole Refrigerating Co., Chicago, Ill., a corporation of Illinois. Application June 10, 1939, Serial No. 278,419. 12 Claims. (Cl. 62-99.)

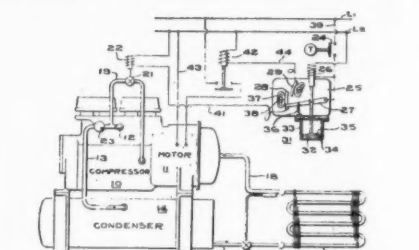
2. A refrigerating apparatus comprising two plates, each consisting of two separated sheets connected together at their edges, means for circulating a refrigerant material back and forth between the sheets of both plates, said plates being connected together to form an intermediate receptacle, the adjacent sheets of the plates forming walls for said receptacle, and a pipe in said intermediate receptacle through which a beverage to be cooled is passed.

2,254,420. REFRIGERATING APPARATUS. Everett Cleveland, Salt Lake City, Utah, assignor of one-half to Arthur L. Layden, Los Angeles, Calif. Application Jan. 24, 1939, Serial No. 252,563. 12 Claims. (Cl. 62-102.)



6. In a refrigerating apparatus, the combination of a horizontally elongated chamber having removable closure means at one end; an endless conveyor disposed wholly within said chamber and comprising an upper run moving from adjacent said one end to adjacent the other end and a lower run moving in the reverse direction, said conveyor being operable to move articles delivered thereto at a position adjacent said one end along the upper run and then back along the lower run to a position adjacent said one end; wall means defining a refrigerant expansion space in heat-exchanging relation to the interior of said chamber.

2,254,593. REFRIGERATING APPARATUS. Rudolph J. Eisinger, Prospect Park, and Raymond J. Ridge, Lansdowne, Pa., assignors to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Oct. 19, 1937, Serial No. 169,758. 3 Claims. (Cl. 230-22.)



1. In a mechanical compression refrigerating system, the combination of a compressor having a crankcase containing a body of lubricating oil connected in the low pressure side of the system, a normally closed pressure-equalizing valve connected between the inlet and the outlet sides of the compressor, an electrically actuated device for operating said valve and arranged to open said valve when energized and to close said valve when deenergized, and an automatic control switch which closes in response to an operating condition indicating demand for operation of the compressor, a time delay device set into operation by closing of said automatic control switch.

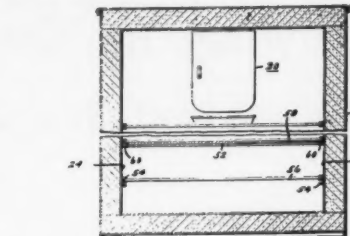
2,254,604. CABINET CONSTRUCTION. Gregg F. Forsthoefel, Adrian, Mich., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Jan. 26, 1938, Serial No. 186,993. 4 Claims. (Cl. 62-116.)

1. In a refrigerator cabinet structure for housing a refrigerant evaporator and the conduits for conveying refrigerant thereto, the combination of spaced inner and outer shells for defining a food compartment and an access opening therefor, said outer shell having side walls, the upper portions of which are bent inwardly and their meeting edges joined for defining a top wall having a top groove formed therein.

2,254,635. REFRIGERATING APPARATUS. Chester S. Trigg, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application Nov. 4, 1938, Serial No. 238,842.

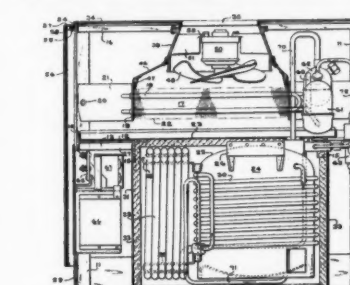


2 Claims. (Cl. 62-89.)



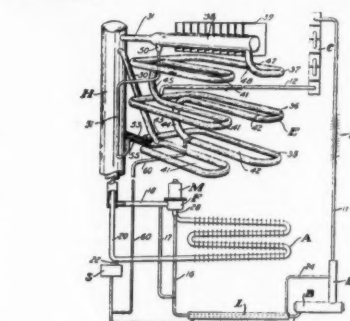
1. A refrigerating apparatus comprising in combination, a cabinet having a plurality of walls defining a food storage compartment therein, a cooling element of a closed refrigerant circulating system within said cabinet for chilling and causing circulation of air in said food compartment, a plurality of vertically spaced apart sets of supports on the side walls of said food compartment, a horizontally disposed shelf supported upon each of said sets of supports, said plurality of sets of supports being provided with means for receiving and supporting a partition independently of the shelves thereon and directly from the food compartment side walls.

2,254,654. AIR CONDITIONING APPARATUS. Richard E. Holmes, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Dec. 1, 1936, Serial No. 113,557. 8 Claims. (Cl. 62-140.)



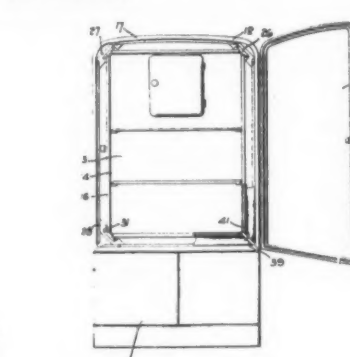
1. In a unit air conditioner, the combination of a frame including vertical members, a horizontal connection between said members intermediate the upper and lower ends thereof, an evaporator carried by said frame above said connection, a drip pan below said evaporator carried by said connection, a motor-compressor unit disposed beneath said connection and suspended therefrom, a condenser disposed beneath said connection and carried by said frame.

2,254,658. REFRIGERATION. William H. Kitto, Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application Oct. 10, 1938, Serial No. 234,110. 9 Claims. (Cl. 62-119.5.)



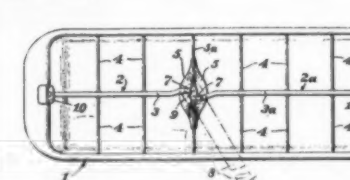
1. Refrigerating apparatus comprising an evaporator, means for propelling a dense inert gas through said evaporator, means for supplying refrigerant liquid to an intermediate portion of said evaporator, means for draining liquid refrigerant from the top portion of said evaporator to a lower portion thereof, and means substantially closing said drain means adapted to open the same in response to the accumulation of a predetermined quantity of liquid in said drain.

2,254,780. REFRIGERATING APPARATUS. Anthony A. Quimper, Westfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Nov. 23, 1938, Serial No. 241,937. 8 Claims. (Cl. 220-15.)



1. In a refrigerator cabinet, the combination of walls comprising inner and outer sheets with heat insulation disposed therebetween, said walls having a substantially rectangular access opening therein and a door therefor, said inner and outer sheets each having an edge portion about said opening, said portions lying substantially in the same plane and spaced from one another and a plurality of separate diagonal strips comprising stiff material secured across the corners of the opening of the outer sheet.

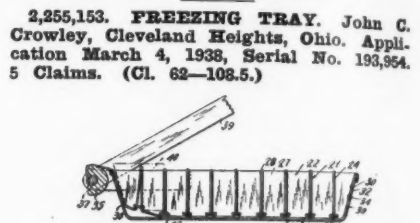
2,254,827. ICE TRAY. James H. Miner, Meridian, Miss. Application Jan. 18, 1939, Serial No. 251,619. 7 Claims. (Cl. 62-108.5.)



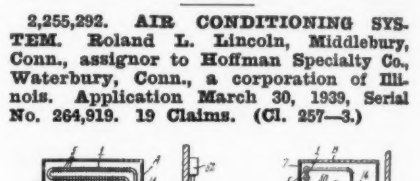
1. An ice tray organization for refrigerators comprising a tray, a yielding partition extending across the same and dividing the tray into two compartments, a grid section in each compartment bearing at its inner end on the yielding partition, and operating means for drawing the grid sections against said yielding partition for dislocating the ice, said partition serving as a water-tight separator between said compartments.

2,254,837. MECHANICAL REFRIGERATOR. Earl A. Burns, Detroit, Mich., assignor to Woodall Industries, Inc., Detroit, Mich., a corporation of Michigan. Application July 8, 1938, Serial No. 218,050. 1 Claim. (Cl. 62-118.)

A refrigerator having a mechanical compartment situated in its lower portion and provided with side walls, the bottom wall of said compartment having an air intake therethrough adjacent to the front of the refrigerator, an air duct communicating with said air intake and extending along underneath said bottom wall and communicating with the atmosphere adjacent to the rear of the refrigerator, said air duct having a wall formed of multi-ply material the outer ply of which is formed of relatively inert rigid sound damping fibrous material wherein the fibers are held together by an adhesive binder and the inner ply of which is formed of relatively porous sound absorbing fibrous material wherein the fibers are loosely integrated.

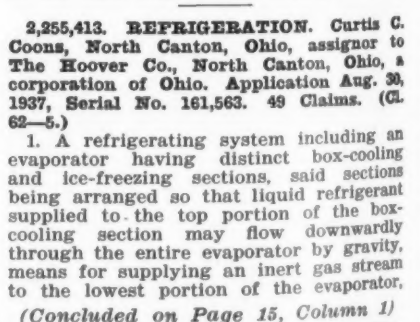


2,255,153. FREEZING TRAY. John C. Crowley, Cleveland Heights, Ohio. Application March 4, 1938, Serial No. 193,954. 5 Claims. (Cl. 62-108.5.)



1. A freezing tray for refrigerators, comprising a receptacle adapted to contain liquid, an elongated flexible member for dividing the interior of the receptacle into a series of matrices for the formation of ice blocks, said member being extensible longitudinally to cause release of the ice blocks and having one end thereof connected with the receptacle, and winding means having connection with the receptacle and with the other end of said member and operable to apply a pulling force to extend the latter.

2,255,292. AIR CONDITIONING SYSTEM. Roland L. Lincoln, Middlebury, Conn., assignor to Hoffman Specialty Co., Waterbury, Conn., a corporation of Illinois. Application March 30, 1939, Serial No. 264,919. 19 Claims. (Cl. 257-3.)



14. In an air conditioning system, a heat interchanger and a radiator in fluid circulating connection with one another, a fan for causing flow of air in contact with the radiator, means for utilizing the circulating fluid to drive said fan, and controllable means for by-passing a selected part of the circulating fluid past the radiator without altering the amount of the fluid utilized for driving the fan.

2,255,413. REFRIGERATION. Curtis C. Coons, North Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application Aug. 30, 1937, Serial No. 161,563. 49 Claims. (Cl. 62-5.)

1. A refrigerating system including an evaporator having distinct box-cooling and ice-freezing sections, said sections being arranged so that liquid refrigerant supplied to the top portion of the box-cooling section may flow downwardly through the entire evaporator by gravity, means for supplying an inert gas stream to the lowest portion of the evaporator.

(Concluded on Page 15, Column 1)

A SIGN OF Hospitality

AMERICAN HOTEL ASSOCIATION

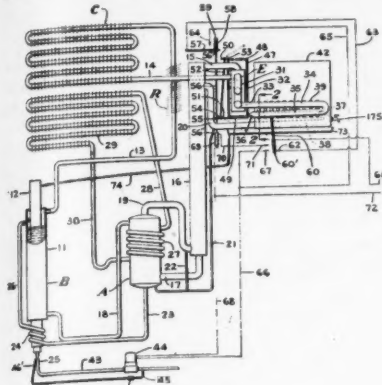
A SYMBOL OF Service

FOR A FRESH START
STOP AT A HOTEL

AMERICAN HOTEL ASSOCIATION

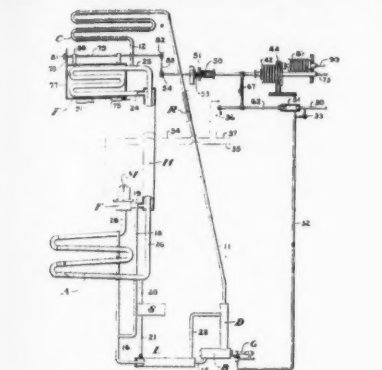
Patents (Cont.)

(Concluded from Page 14, Column 5)
and means responsive to demands for refrigeration operative to cause evaporation of the liquid refrigerant into the



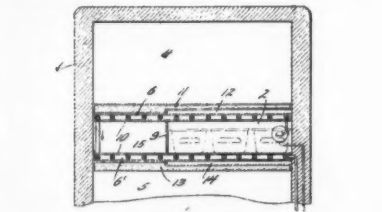
inert gas stream to occur in a selected one of said sections.

2,355,441. REFRIGERATION. Arnold D. Siedle, Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application July 20, 1938, Serial No. 220,192. 15 Claims. (Cl. 62-5.)



1. Refrigerating apparatus comprising a cooling unit, means for supplying a cooling medium to said cooling unit, means for controlling the operation of said cooling medium supply means, refrigeration demand responsive means for operating said control means, thermostatic means for holding said refrigeration demand responsive means in operative position, said thermostatic means being operative to allow movement of said refrigeration demand responsive means to an inoperative position in response to the formation of a predetermined depth of frost on said cooling unit.

2,355,459. COOLING PARTITION FOR DOMESTIC REFRIGERATORS. Carl G. Vretman, Atlanta, Ga. Application Nov. 10, 1939, Serial No. 303,874. 7 Claims. (Cl. 62-85.)

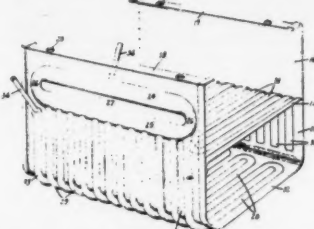


1. In a cooling partition for domestic refrigerators, a flat evaporator plate extending horizontally in a refrigerator housing, a completely closed liquid chamber adjacent said evaporator and in heat exchange contact therewith over a portion of its area, and a flat insulator extending between said evaporator and said liquid chamber throughout a portion of their mutual extent.

2,355,512. REFRIGERANT EVAPORATOR. Delbert F. Newman, Schenectady, N. Y., assignor to General Electric Co., a corporation of New York. Application Nov. 1, 1939, Serial No. 302,376. 2 Claims. (Cl. 62-126.)

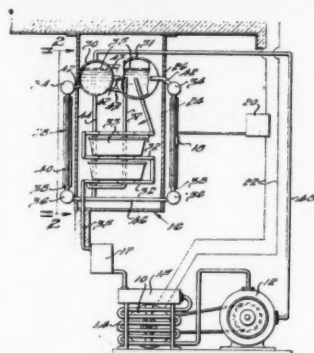
2. An evaporator of the flooded type for refrigerating machines comprising complementary sheet metal portions secured together in face engagement and formed to provide at least one vertical wall and a freezing shelf, said sheet metal portions having indentations therein near the top of said vertical wall forming two parallel horizontally extending substantially identical cylinders and passages connecting said cylinders at their ends to constitute said cylinders a liquid and vapor separating header, said sheet metal

portions being securely bonded together between said indentations, said sheet



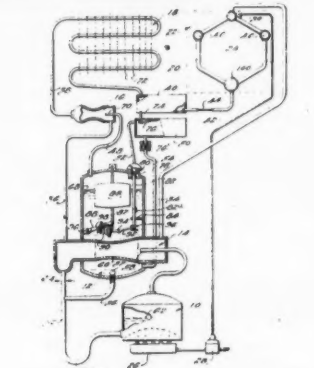
metal portions having a plurality of complementary indentations.

2,355,594. METHOD OF AND APPARATUS FOR HEAT TRANSFER. Earl F. Hubacker, Highland Park, Mich., assignor to Borg-Warner Corp., a corporation of Illinois. Application Dec. 11, 1937, Serial No. 179,249. 9 Claims. (Cl. 62-116.)



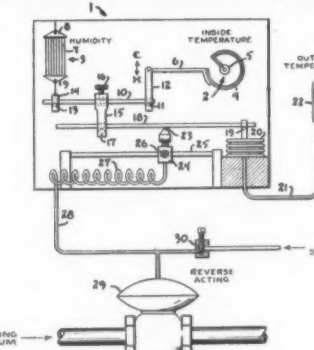
1. The method of producing refrigeration which comprises forming a liquid solution of (SO₂) and (C₂H₆), evaporating liquid from said solution to produce refrigeration at one temperature, transferring liquid from said solution to form a body of refrigerant at another point having a boiling point different than that of said solution, evaporating refrigerant from said body of refrigerant to produce refrigeration.

2,355,596. HEAT TRANSFER SYSTEM. Earl F. Hubacker, Highland Park, Mich., assignor to Borg-Warner Corp., Chicago, Ill., a corporation of Illinois. Application Feb. 24, 1939, Serial No. 258,209. 8 Claims. (Cl. 62-115.)



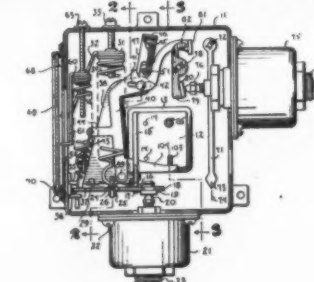
1. Refrigerating apparatus comprising a primary boiler circuit which includes a primary boiler, a primary injector, the nozzle of which is supplied with fluid under pressure from said boiler, a connection for returning fluid from said injector to said boiler and means for heating fluid in said boiler, a secondary boiler circuit which includes a secondary boiler, a secondary injector, the nozzle of which is supplied with fluid under pressure from said secondary boiler, a condenser and primary and secondary receivers and means for periodically effecting the transfer of fluid between said secondary boiler and said secondary receiver.

2,355,639. CONDITION CONTROLLER. Douglas H. Annin, San Francisco, Calif., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Dec. 3, 1937, Serial No. 177,918. 5 Claims. (Cl. 236-44.)



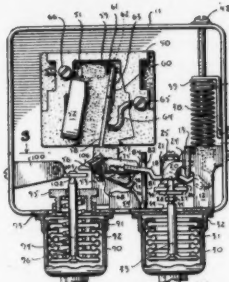
4. In a compensated effective temperature controller, in combination, a space temperature responsive thermostat, a space relative humidity responsive device, a floating lever actuated by the conjoint action of said thermostat and said humidity responsive device, an actuating device mounted on said lever at an adjustable intermediate point between said thermostat and said humidity responsive device, an outdoor temperature responsive thermostat.

2,355,666. PRESSURE SWITCH. Albert L. Judson, Portland, Ore., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application July 2, 1938, Serial No. 217,244. 11 Claims. (Cl. 200-83.)



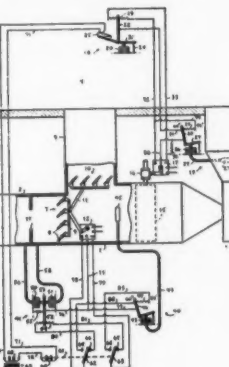
1. A device of the character described comprising in combination, an operating member, a first condition responsive means for moving said operating member back and forth, an actuating member normally movable with said operating member, a switch mounted for actuation by said actuating member, a support, a lever mounted on said support, a one way acting bimetallic thermostat mounted on said support for rotating said lever.

2,355,667. PRESSURE OPERATED SWITCH. Albert L. Judson, Portland, Ore., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application July 2, 1938, Serial No. 217,245. 22 Claims. (Cl. 200-83.)



1. In a device of the character described comprising in combination, a control member mounted for movement back and forth in opposite directions, means biasing said member in one direction, a first lever having a one-way connection with said member for controlling its movement in the opposite direction, a second lever having a one-way resilient connection with said member for controlling its movement in said one direction.

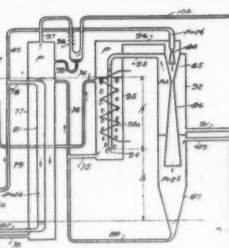
2,355,735. AIR CONDITIONING SYSTEM. William L. McGrath, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Nov. 2, 1939, Serial No. 302,571. 10 Claims. (Cl. 236-38.)



5. In an air conditioning system for conditioning the air in a space, an air conditioning chamber, means for circulating air through said chamber and the space to be conditioned, said chamber including a fresh air inlet through which outside air may be admitted and an inlet for the admission of return air from said space, damper means controlling the flow of air through said fresh air inlet into said chamber, conditioning means in said conditioning chamber.

REISSUE

21,894. MEANS AND METHOD OF REFRIGERATION. Bo Folke Randel, San Diego, Calif. Original No. 2,052,580, dated Sept. 1, 1936, Serial No. 642,529, Nov. 14, 1935. Application for reissue Jan. 26, 1938, Serial No. 187,043. 33 Claims. (Cl. 62-119.5.) (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757.)



5. That improvement in the art of refrigeration by the aid of a system containing absorbent fluid, refrigerant fluid and additional fluid for equalizing pressure which consists in vaporizing an absorbent, passing a portion of said vapor through an injector, condensing said vapor in said injector causing an increased velocity and utilizing the energy in said increased velocity to circulate a mixture of refrigerant vapor and inert gas between an absorber and an evaporator.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE). Patent Attorney, 342 Madison Avenue, New York City.

Oklahoma School Offers Refrigeration Course

WEATHERFORD, Okla. — Principles and fundamentals of both refrigeration and air conditioning are taught in an introductory course at Southwestern Tech this fall, Earl Hamburger, instructor, announces.

BUY
ACME
LIQUID RECEIVERS
JACKSON ACME INDUSTRIES MICH.

LET US SOLVE YOUR
COIL PROBLEMS
MARLO COIL COMPANY
SAINT LOUIS, MISSOURI

It's "in the Bag!"

WHEN YOU ORDER YOUR
AIR CONDITIONING
AND **REFRIGERATION**
SUPPLIES AND EQUIPMENT
BY MAIL YOU GET THE SAME
QUICK, CAREFUL SERVICE
THAT YOU RECEIVE "IN
PERSON."WRITE FOR
CATALOG ON YOUR LETTERHEAD

THE HARRY ALTER CO. NEW YORK PHILADELPHIA NEWARK
1728 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS DETROIT
3 CHICAGO BRANCHES, NORTH, WEST, SOUTH CLEVELAND
JAMAICA ST. LOUIS

TO **SHERER**
FOR PROFIT
WITH COMMERCIAL REFRIGERATORS

Follow the profit road with Sherer. A complete line of display and storage refrigerators and full factory cooperation makes the going easier. Write for complete franchise details.

SHERER-GILLET CO. MARSHALL, MICH.

Only **POLARTRON**
Offers Truly Independent Adjustment

This exclusive MINNEAPOLIS-HONEYWELL feature enables you to change either the ON or OFF pressure without affecting the other

MINNEAPOLIS-HONEYWELL
MINNEAPOLIS-HONEYWELL REGULATOR COMPANY REFRIGERATION
1001 FOURTH AVENUE SOUTH, MINNEAPOLIS, MINN. CONTROL

Henry
ABS-DRY—PRESSURE SEALED DRYER

Most efficient due to the exclusive Henry vacuum drying and pressure sealing process. Escape of dehydrated air when seal cap is removed proves unit is absolutely dry! Soldered brass shell with dispersion tube and dehydrant compression spring. Choice of Silica Gel or Activated Alumina

Write for Catalog
ASK YOUR JOBBER ABOUT IT
Henry Valve Company
1001 W. W. SPALDING AVE., CHICAGO

REPLACEMENT ICE MAKERS
For Kelvinator—Westinghouse & G.E. All Copper—Replaces Old Steel—Porcelain Units. Priced Moderately.
KRAMER-TRENTON CO.
TRENTON, N. J.

SPORLAN
VALVES

For Information on Motors
FOR ALL TYPES OF
Air Conditioning and
Refrigeration Equipment
WRITE TO
Wagner Electric Corporation
441 PLYMOUTH AVE. ST. LOUIS, MO.

90% HUMIDITY IS IN YOUR FAVOR
with the new
KOCH METERED MIRAFLEX COILS

Only in Koch cases can you get Metered Miraflex Coils. This patented, exclusive system is sensational and astounding! Sensational, because it automatically maintains constant, correct temperatures and 80% to 90% relative humidity. Astounding, because exhaustive tests show it delivers 10% higher humidity with 20% shorter running time of the condensing unit... 90% more air circulation with 75% less ice formation on the coils. Miraflex is just one of many reasons why distributors sell Koch. Write for complete details and open territories.

KOCH REFRIGERATORS
NORTH KANSAS CITY, MISSOURI
You'll make money selling KOCH

OPM Plans Ratings Keep Prices Down, For Service Tools Henderson Asks

(Concluded from Page 1, Column 1)

systems is in preparation and is to be issued in the very near future. According to this official, the order of Sept. 9 was intended to provide repairs for food processing plants and wholesale food storage units. There was some discussion of carrying the coverage beyond wholesaling to include restaurants, at least, but this apparently was thrown out.

Also in preparation, it is revealed by OPM officials, is an order which will set up priority ratings for replacement tools and shop equipment for service firms engaged in repair work.

AIR CONDITIONING & REFRIGERATION NEWS received interpretations of Preference Rating Order No. P-22 as it applies to the refrigeration industry, from two different sources.

This following interpretation was received from Milton Katz, assistant general counsel of the OPM:

"You inquire whether the definition of 'food processing or storing' used in Preference Rating Order No. P-22 covering repairs, includes mechanical refrigerating equipment in commercial use which is used to preserve food in small retail stores, restaurants, hotels, and institutions. You also ask whether the term 'Supplier' includes manufacturers' agents or dealers, and jobbers or independent repair men who sell repair parts for such equipment.

"The definition in the Order of the food processing or storing industry refers to plants engaged in any of the following: 'milling, refining, preserving, refrigerating, wholesaling, or storing of food for human consumption or livestock feed.' In view of the fact that the preference rating is assigned to facilitate the 'acquisition of material for the repair of the property or equipment of certain industries or services,' the word 'plant' must be interpreted in the sense in which it is ordinarily used in industry—that is, a plant engaged in milling, etc. food on a large scale as its principal business. Therefore, the preference rating may not be assigned to repair parts for the mechanical refrigerating equipment referred to in your letter.

"Agents, dealers, jobbers, or independent repair men are 'Suppliers' within the meaning of the order but only to the extent that rated orders for repair parts have been placed with them by a 'Producer' as defined.

And from Dean C. Gallagher, maintenance and repairs section, OPM, comes this statement:

"Preference Rating Order No. P-22 has been interpreted to the effect that the refrigerating equipment used to store food in retail stores, restaurants, and hotels is not included under definition VIII of Section A. Refrigeration equipment in institutions covered by the Order, however, would be covered.

Women Being Trained To Sell Appliances

(Concluded from Page 1, Column 5)

The two-day training course was devoted to a study of home laundry problems and the best ways to demonstrate and sell washers and ironers, with emphasis on the Bendix and Ironrite products. Fifteen women hired by dealers at the suggestion of the distributorship came to Charlotte for the meetings, held in the Hotel Barringer.

First morning was devoted to studying laundry problems in the home, followed by a demonstration of Bendix equipment in the afternoon. Second morning session concentrated on ironers. In the afternoon there was a lengthy discussion of selling methods designed to make these women more than just "home demonstrators."

Of the first 15 women trained, 12 are now active with dealerships and are making sales, Mr. Fulenwider

(Concluded from Page 1, Column 3)

carried excise taxes previously—such articles as automobiles, tires, tubes, radios, and household refrigerators—the new rate will be double or nearly double the old one.

"The increased prices paid by consumers as the result of the new levies should in no case reflect more than the actual dollar amount of the manufacturers' total excise tax," Mr. Henderson stated. "This policy should be applied to cases where excise taxes are continued and increased as well as where taxes are now being levied for the first time.

"Pyramiding of these taxes must be carefully guarded against. Where a manufacturer sells an article for \$100 and passes on the 10% excise tax it results in a price of \$110 to the wholesaler. Should the latter compute his regular mark-up price on the \$110 price, instead of on the \$100 base, the price to the retailer will be raised by more than the amount of the tax.

"If the retailer in turn calculates his mark-up, on this total, the final cost of the article to the ultimate consumer will be raised considerably in excess of the actual excise tax.

"Properly figured, the tax should be left out of all mark-up calculations. The threat to the general price structure if 'pyramiding' of the new tax is resorted to by distributors of merchandise is dangerous."

Fall Plans Outlined By Detroit ASRE

(Concluded from Page 1, Column 5)

B. Bright, Detroit Ice Machine Co. "The Brewing Industry of America"—Herman Rosenbusch, superintendent and master brewer, Stroh Brewery; past president, National Brew Masters Association.

Escorted trip through brewery. Members are requested to bring along two or more prospective members.

NOVEMBER 3

Otto Z. Klopsch, chairman, Wardell hotel, Woodward Ave. at Kirby.

"Probable Effect of the Priorities Program on Refrigeration Products in 1942," George F. Taubeneck, editor and publisher of AIR CONDITIONING & REFRIGERATION NEWS.

"The Impact of Defense on the Refrigerating Industry," E. B. Newill, General Motors Corp., now assigned to special defense duty.

Members are invited to bring the chief executives of their companies with them to this meeting.

DECEMBER 1

W. P. Moehlenpach, chairman, Wardell hotel.

Introductory talk, W. P. Moehlenpach, research engineer, Progressive Welder Co.

"Railroad and Bus Air Conditioning," C. G. Callow, sales manager, Waukesha Motors Corp.

Kellie Named Aminco Vice President

(Concluded from Page 1, Column 2)

and for four years prior to that was chief of development and engineering for the company. Before joining American Injector, he was identified with a number of companies in technical and sales engineering capacities.

Well grounded in both the practical and theoretical sides of the industry, Mr. Kellie's experience covers foundry, tool room, and pattern shop training, plus a degree from an English university in mechanical engineering, specializing in heating and refrigeration.

He also was associated with the early successful application of air conditioning to refrigerated products in India. During the first World War, he was a pilot in the RAF.

N.Y. Dealers Cool To 'Edison Plan'

(Concluded from Page 1, Column 5)

that next year there will be fewer appliances to sell.

"With the shortage of merchandise that exists now and the likelihood of its getting worse during the coming year, the service business remains one of the few reasonably certain sources of income to us," one dealer declared. "If Mr. Jeffe is going to take this away from us—and it certainly looks as though he means to—it certainly won't be helping us a bit."

Although the servicing business to him was a break-even affair, another dealer said the plan would hurt him most by depriving him of leads to new-appliance sales, extremely valuable in the past. Others questioned: "What about the service men we now employ? And what are we going to do with the money we have tied up in servicing facilities? How can we expect to get servicing business in competition with such a centralized set-up?"

"What's going to happen to the one-year free servicing period on many appliances?" a distributor asked. "And where will this new company get new parts for all these units, when we're having trouble now getting parts for our own individual requirements?"

From the manufacturer's standpoint, a major objection to the plan was that it might entail surrendering servicing supervision of the company's own brand of appliances.

Most companies, it was pointed out, are as jealous of their reputation for quality servicing as they are of any one part of their operations. Scarcity of details as to financing and management of the new organization also inclined many distributors away from a favorable view of the proposal.

From the standpoint of service men themselves, S. Balasco of Interstate Appliance Co. reports that most men he has talked to favor the Edison plan. One service firm, he says, calls the plan "the best thing that ever happened in New York" in that it would insure reliability of work and eliminate about 50% of the firms now in business, who do inferior work and overcharge the customer.

Two other firms, however, were against the plan on the ground that, being small organizations, they would be forced out of business or have to go to work for some other larger concern. Both of these companies said they would not be able to furnish a financial report strong enough to satisfy the power company, and that small service firms had little to gain from the plan.

Main value of the plan, Mr. Balasco believes, would be in reconditioning refrigerators now in use in apartments and other properties held by real estate companies, with the servicing charges payable out of income over 12 or 18 month, at an overall cost of \$20 to \$25 per unit as against \$87 to \$92 for new units, provided new units could be had.

Under present rental set-ups, most management companies would favor reconditioning old refrigerators now in use rather than buying new refrigerators.

Toronto Dairy Show Will Set Record

(Concluded from Page 1, Column 4)

and the Ontario Association of Ice Cream Manufacturers.

Among the exhibitors at the exhibition are several from the refrigeration field. Displays they have planned include the following:

Curtis Mfg. Co., St. Louis. Milk cooler, compressors, and refrigeration coils.

Dole Refrigerating Co., Chicago. Truck plates, bank overhead and shelf plates, and electrically lighted display unit.

Frigidaire Division, General Motors Sales Corp., Dayton, Ohio. Four, six, and 10-hole double row ice cream cabinets; 2, 3, and 4-hole single row cabinets; and 6-hole single and 8-hole double row remote ice cream cabinets.

Kelvinator Division, Nash-Kelvinator Corp., Detroit. Seven models of ice cream cabinets; 2-hole single row to 12-hole double row, refrigerated by "Polarispheres" unit; Merchandise board; fountainette and sink unit.

Kold-Hold Mfg. Co., Lansing, Mich. Cut-away truck type cooling unit; Savage Kold-Hold truck unit; freezer shelf and bank plates; Quirk milk cooling cabinet; soda fountain conversion unit.

Pacific Lumber Co., Chicago. Palco-Wool insulation.

Universal Cooler Co. of Canada, Ltd., Brantford, Ont. Soda Master Fountain unit; 10, 18, and 30-gallon self-contained ice cream cabinets; Birds Eye frosted food cabinet.

VERSATILITY... In "Civilian" Duty or Defense Needs



DEPENDABLE VALVES

One measure of any product is its quick acceptance for "Emergency Duty" . . . Its recognized Versatility in successfully serving those new duties.

In domestic and commercial Refrigeration and Air Conditioning, A-P DEPENDABLE Valves have long ranked high in the regard of men responsible for mechanical perfection and efficiency of expensive installations. Refrigeration Service

Engineers have learned to use them with confidence—and profit.

Today, Defense demands new uses, new applications for Refrigeration and Air Conditioning, in fields removed from standard needs of food preservation and human comfort . . . In the manufacture of Aircraft, Engines, Tools, Shells, Radio Mechanisms, Steel, Copper, Metal Alloys—to name only a few. In these more stringent demands,

where production must go on without interruption, its natural that A-P DEPENDABLE VALVES should play an important part.

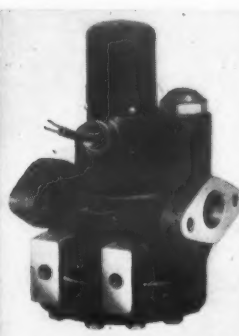
Defense has added hundreds, thousands of new duties to A-P DEPENDABLE Valves, duties that are being accomplished with outstanding success in all fields. This is proven Versatility that YOU can use profitably.



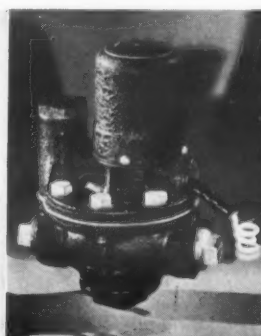
DEPENDABLE VALVES...



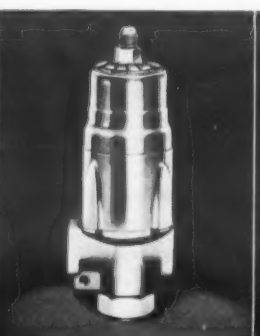
Thermostatic Expansion Valves



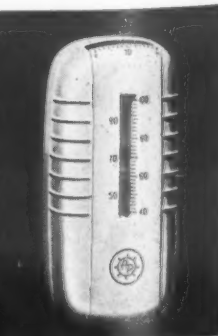
Refrigerant Solenoids



Solenoid Water Valves



Water Regulating Valves



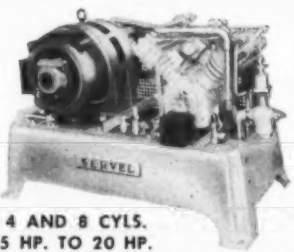
Thermostats for Heating or Cooling

★ Progressive Service Engineers Use and Recommend — and Aggressive Jobbers Stock and Talk — A-P Products.

AUTOMATIC PRODUCTS COMPANY
2450 NORTH THIRTY-SECOND STREET
MILWAUKEE WISCONSIN
Export Dept. 100 Varick St., New York City

SERVEL MACHINES FOR HIGH-CAPACITY REQUIREMENTS

These heavy-duty models are designed for large commercial or industrial applications. For liquid cooling, locker storage, food processing, etc. 4 and 8 cylinders. 5 to 20 HP. Available with water-cooled condensers or for use with evaporative condensers. Write for details, Servel, Inc., Electric Refrigeration and Air Conditioning Division, Evansville, Indiana.



4 AND 8 CYLS.
5 HP. TO 20 HP.

DEPENDABLE Refrigerant Valves